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Sports and Spirits: A Mixed Methods Investigation of Student Sportspeople's Drinking

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I. Declaration

I declare that this thesis is my own work carried out under the normal terms of supervision. I confirm that this work has not been submitted for any comparable academic award.

Signed: 

II. Acknowledgements

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III. Abstract

By theoretically framing sportspeople's drinking within a social identity perspective, this thesis aims to elucidate the social psychological processes underpinning the link between sport group membership and alcohol use. It is argued that focusing on these group-level processes provides theoretically grounded foundations for applied practice.

The thesis utilised both quantitative and qualitative methods. Secondary data analyses in Study 1 indicate that athletic identification plays a significant role in shaping alcohol consumption in different sporting contexts. Study 2 examined longitudinally personal and group-based social identities. Results indicated that alcohol consumption increased sports group identification over time, and this identification positively related to wellbeing. In contrast, a personal athletic identity was weakly associated with alcohol behaviours, indicating that there may be utility in harnessing these dual identities when addressing health in sport. Qualitative explorations in Study 3 exposed sport-related drinking as strategic and functional practices that served to provide a positive sport experience at the group-level. To achieve this, the sports group exhibited self-monitoring and regulating influences, whereby members' alcohol behaviours could both be encouraged or deterred by the wider group. Experimental manipulations in Study 4 sought to examine effects of alcohol consumption and social identity processes between sporting and non-sporting participants. Findings indicate that intoxication exaggerates in-group biases for those highly identified with their group, pointing to a hitherto unexamined interplay between the psychopharmacological effects of alcohol and intergroup behaviour.

Overall, the thesis highlights the central role of sport-related identities in defining alcohol behaviours. Its contributions outline how a number of social identity processes (identification, wellbeing, self- and social control) may be drawn upon to address risky drinking among student sportspeople.

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1 Introduction

1.1 The Social Psychology of Drinking

From the earliest historical records, observers have commented on the act of drinking as an inherently social activity (Dietler, 2006; Douglas, 1987). Since Neolithic times (around 4000 BC), consuming alcohol in groups has played a central role in almost all human cultures (Heath, 1976). Today, the consumption of alcohol beverages is easily recognised as commonplace in society and the uses for alcohol are immersed with social value and significance (Wilson, 2005). We would raise a glass of champagne at weddings, or drink red wine with red meat at dinner. Moreover, people consider drinking alcohol as a sharing act, as much as it is an imbibing action. A group can share a bottle of wine, or share thoughts of good will and congratulations through 'toasting'. As such, alcohol continues to play a prominent role within our social world and resonates with cultural, emotional, and interpersonal expression (Dietler, 2006). The significance of alcohol, and its patterns of use, come with their own identifying aspects that make present-day drinking a practice that orients its consumer in terms of gender, class, religion and identity (Wilson, 2005).

However, alcohol and its uses in modern day society have become a cause for global concern (WHO, 2011). Although abating somewhat in recent years, the rates of consumption over the past four decades have been on an upwards trend, with alcohol having become cheaper, stronger and more widely available in many societies (National Statistics, 2012). Its increased consumption is associated with a rise in the number of related harms. A cursory glance over the UK statistics show a persistent increase in alcohol-related acute injury and hospital admissions (HSCIC, 2014), and long-term health effects, such as liver cirrhosis, culminating in an 11-year rise in alcohol-related deaths since 2002 (ONS, 2014). The wider social impacts of alcohol use are implicated by figures reflecting how

nearly half of annual criminal offences report the offender to be (or believed to be) under the influence of alcohol (IAS, 2013). The estimated cost of alcohol harm to society is £21 billion per year in healthcare, crime, and lost productivity (HC, 2012).

First noted in Krietman's 'prevention paradox', it is suggested that whilst heavy drinkers are at higher risk of incurring alcohol-related problems, the majority of concerns related to alcohol misuse may be derived from the larger majority of non-problematic or moderate drinkers (Kreitman, 1986; Rose, 1981; Skog, 2006; Stockwell et al., 2004). Indeed, the recorded prevalence of high-risk problematic drinking, in terms of clinical dependency and addiction, is proportionately small within the general drinking population (5.4%; APMS, 2007). This intimates that the lion's share of alcohol harms are associated with the greater prevalence of 'normal' or moderate drinkers in society, compared to the small number who present with high-risk drinking (Skog, 2006).

Analogously, current statistics indicate that recorded alcohol dependency among adults in England were mostly categorised as mild (defined as a score of 16 or more on the Alcohol Use Disorders Identification Test: AUDIT; Saunders, Aasland, Babor, & Grant, 1993), with fewer adults reporting symptoms of moderate or severe dependency (0.4% males and 0.1% females[1]; APMS, 2007). However, a much larger proportion of the population (24%) consume alcohol in a way that is potentially harmful to their health or well-being (defined as an AUDIT score of eight or more; McManus, Meltzer, Brugha, Bebbington, & Jenkins, 2009). In this way, the increasing costs and harms on society may be best tackled by examining drinking behaviours of the 'social drinkers' within society

[1] The *Adult Psychiatric Morbidity in England – 2007, Results of a household survey* report presents prevalence estimates of hazardous and harmful drinking and of alcohol dependency in the adult general population. However, a survey of the household population is likely to under-represent dependent adults, who are more likely to be homeless or in inaccessible institutional setting. The authors also note the additional issue of problem drinkers who do live in private households may be less able, or willing to participate in surveys.

(Kreitman, 1986). However, the ambivalence between the desirable social aspects of drinking and the undesirable outcomes of intoxication (Room, 2001), pose the question of how alcohol researchers, policymakers, and health professionals can extricate socially 'healthy' alcohol behaviours from negative alcohol-related consequences and hazardous drinking.

In particular, the rates of heavy drinking in the UK have led to the expression 'a culture of intoxication' (Measham & Brain, 2005; Szmigin et al., 2008), whereby the social discourse and behaviours surrounding drinking has normalised the consumption of alcohol in excessive and hazardous ways. Alongside the concepts of 'calculated hedonism' and 'determined drunkenness' discussed by alcohol researchers (Brain, 2000, p. 7; Measham, 2004, p. 316), contemporary research suggests that alcohol use is framed by pre-meditated pursuits of pleasure and a 'controlled loss of control' relating to excessive alcohol consumption (Szmigin et al., 2008, p. 363). In this respect, scholars identify modern day drinking as enacted through cultural and socially-deliberated factors.

As such, discussions surrounding these concepts focus on how drinking indulgences are not simply mindless anti-social activities but contained within a number of important factors such as time, space and the social situation (Measham, 2004). Alcohol use is highlighted to be an important aspect in the social lives of young adults (Griffin, Bengry-Howell, Hackley, Mistral, & Szmigin, 2009; Measham & Brain, 2005), with social activities often orientated around drinking (Monahan & Lannutti, 2000; Pettigrew, Ryan, & Ogilvie, 2001; Wilson, 2005). Ethnographic research with university students suggests that alcohol use is culturally constructed as a positive, functional and necessary activity for this environment (Workman, 2001). Similarly, early anthropological literature detailed how aspects of socialisation can radically change the ways in which people drink and exhibit behavioural patterns associated with alcohol consumption (Douglas, 1987; Heath, 1976; Mandelbaum, 1965). For example, the

socially-agreed standard of what is (and what is not) acceptable for 'drunkenness' has been shown to change between cultures, and from one context to another (MacAndrew & Edgerton, 1969).

Taken together, the research underscores how social features are vital components to how people construct their drinking and are motivated to use alcohol. In accord, social psychological reviews have detailed how people's alcohol behaviours are associated with their perceptions of others' use, and how it can engender one's personal identities and social context (Borsari & Carey, 2001; Griffin et al., 2009; Monk & Heim, 2014). Resultantly, these works further the argument that, in order to examine alcohol behaviours, researchers are required to consider the environments in which drinking is performed, and the social motives underpinning its use.

With alcohol being the third leading global risk factor for disease and disability (WHO, 2011), the harms associated with its excessive use implicates its presence in people's everyday lives as an area requiring continued research. What the evidence suggests, and what seems intuitively known about alcohol consumption, is that it is regarded as a social activity (with obvious exception to clinically dependent drinkers). It is considered a social lubricant (Monahan & Lannutti, 2000; Sayette et al., 2012), and as such, its uses are intertwined with our social perceptions and shaped through our social interactions. With this in mind, a social psychological study of drinking provides a compelling focus for research seeking to uncover the 'real world' processes involved in determining alcohol use.

1.2 Sport Participation and Alcohol Use

When considering the presence of alcohol in social life, equally as close are the ties that link sporting participation, watching or playing, to alcohol and the drinking environment (Stainback, 1997). Reports from as early as the sixteenth-century note that leisure and sporting events were often held in public

houses, sports teams were sponsored by local breweries, and much of the focus for pub entertainment was the promotion and staging of organised games (Collins & Vamplew, 2002). Most sporting trophies are easily identifiable as a cup (prominent examples include the Premier League trophy, Ryder Cup). One could consider perhaps the award of a chalice or a cup-shaped prize had the original intention to act as a drinking vessel for the winning team or sportsperson (ibid). Common sport-associated drinking patterns include drinking while watching sporting events (Eastman & Land, 1997), or to consume alcohol after taking part in a sporting occasion, whether to celebrate or commiserate (Stainback, 1997).

Commercially, sport has been a vehicle for alcohol endorsement and sponsorship for decades. It is such common practice to see alcohol advertisement at sporting events that some have observed that it is almost unusual for a sporting event to be seen without some form of alcohol-related brand endorsement (McDaniel, Kinney, & Chalip, 2001). The sponsorship of sports teams and/or sporting events fortifies the financial link between sport and alcohol, with the involvement of the alcohol industry justified as a mutually beneficial financial partnership (Crompton, 1993).

However, evidence suggests that alcohol industry sponsorship has a significant impact on its participants' alcohol use. Sportspeople in receipt of alcohol industry sponsorship demonstrated significantly higher AUDIT scores, an indication of hazardous drinking (O'Brien & Kypri, 2008; O'Brien, Lynott, & Miller, 2013). In contrast, those receiving non-alcohol industry sponsorship indicated no such associations (O'Brien, Miller, Kolt, Martens, & Webber, 2011). Similar research extended to the UK suggests that this relationship is pervasive (O'Brien et al., 2014), and adds to the debate over the need to prohibit alcohol sponsorship in sport (RCPI, 2014). The evidence suggests that the link between sport and alcohol can directly contribute to the drinking behaviours of those engaged in sport. Moreover, given the historical, commercial and cultural

connections, there is a strong impression that "anyone involved in sports, whether as a player or as a fan, will almost inevitably be exposed to a strong message that alcohol and sport are inextricably linked" (Jones, Phillipson, & Lynch, 2006, p. 3).

Notwithstanding this association with alcohol, however, participating in sport is seen as a character-enhancing activity where a sense of pride, identity, achievement and personal empowerment are linked to its involvement (Blinde, Taub, & Han, 1994). To this end, sport has been endorsed as a preventative and rehabilitation measure against anti-social behaviour (Sport England, 2009), alcohol and drug use (Crabbe, 2000), and an environment for cultivating societal values and key social skills (Arnold, 1999). As such, the moral developments linked to sport are perceived to benefit both individuals and society. For example, communicative reports commend the effects of sport on the five "C's": competence, confidence, connections, character and caring (USADA, 2012, p. 31). The broad view of sport, therefore, is that it is a positive and healthy endeavour. Embedded in its participation is the notion that it transmits significant and, more importantly, desirable attributes transpired through commitment, teamwork, and sportsmanship.

However, alongside the numerous physical and psychological health benefits of sport participation itself, research consistently suggests that athletic involvement relates to elevated rates of alcohol consumption and hazardous drinking behaviours (Cadigan, Littlefield, Martens, & Sher, 2013; Kwan, Bobko, Faulkner, Donnelly, & Cairney, 2014; Leichliter, Meilman, Presley, & Cashin, 1998; Nattiv, Puffer, & Green, 1997). Moreover, this relationship is particularly problematic among student sportspeople (Martens, Dams-O'Connor, & Beck, 2006a; Turrisi, Mallett, Mastroleo, & Larimer, 2006). An expanse of literature reports how students participating in or following sport consume alcohol more frequently compared to their non-sporting peers (Martens, Watson, & Beck,

2006d; Neal, Sugarman, Hustad, Caska, & Carey, 2005; Partington, et al., 2012; Ward & Gryczynski, 2007). When Leichliter and colleagues (1998) assessed athlete status against the quantity of alcohol consumed, they found that respondents involved in organised institutional sports reported consuming significantly more drinks per week than their nonsporting counterparts (7.57 vs. 4.12 drinks, $p < .001$). Furthermore, a greater percentage of athletes reported recently engaging in heavy episodic binge drinking (defined as five or more alcoholic beverages in one session) when compared to non-athletes (55.3% vs. 36.3%, $p < .001$). Similar patterns of results have been found in comparable studies (50-61% vs. 36-43%; Ford 2007; Hildebrand, Johnson, & Bogle, 2001; Nelson & Wechsler, 2001; Wechsler, Davenport, Dowdall, Grossman, & Zanakos, 1997). Notably, the bulk of research originates from the US. However, the handful of non-US studies also identify elevated rates of hazardous alcohol use and, as a consequence alcohol-related harms, among student sportspeople (Martha, Grelot, & Peretti-Watel, 2009; Partington et al., 2012). An emerging concern is that this pattern of hazardous consumption seems to continue after individuals no longer participate in sport (Cadigan et al., 2013; Green, Nelson, & Hartmann, 2014).

Therefore, it is not without irony that researchers note the paradoxical and compromising relationship between the health-enhancing participation of sport, and the health-debilitating engagement of hazardous alcohol use observed among this particular subgroup (Lisha & Sussman, 2010; Musselman & Rutledge, 2010; Wenner & Jackson, 2009). As it stands, studies on prevalence rates of student sports-related drinking are abundant (Ford, 2007a; Leichliter et al., 1998; Nelson & Wechsler, 2001). However, less research looks to elucidate the psychological underpinnings of how and why such a relationship exists. With alcohol misuse a well-documented leading cause of morbidity and mortality (Room, Babor, & Rehm, 2005) the reasons underlying this Faustian pact between sports and alcohol warrants closer scrutiny.

More recently, researchers have begun to unpick the socio-cultural features of drinking in sporting environments. Early descriptive studies intimate that alcohol consumption plays an integral part in the socialisation of team members and individual sport participants through building social norms and team cohesion (Douglas, 1987; Orloff, 1974). Building on this, research corroborates the important influence of drinking norms and cultural practices on sportspeople's alcohol use (Dams-O'Connor, Martin, & Martens, 2007; O'Brien, Kolt, Webber, & Hunter, 2010). For example, sport narratives often describe common post-match customs, such as drinking with the opposing team to promote social integration, as traditional practice (Collins & Vamplew, 2002; Donnelly & Young, 1988; Fuchs & Le Hénaff, 2014). In nations with strong sporting identities (e.g., Australia), alcohol consumption is viewed as normative practice for celebrating or commiserating sport success or failure (McGuifficke, Rowling, & Bailey, 1991), particularly in team sports (Black, Lawson, & Fleishman, 1999; Palmer & Thompson, 2007).

Cumulatively, the research suggests that there are features of sports participation, and being a member of a sporting group, which are traditionally associated with alcohol (Palmer, 2011). Moreover, it is apparent that excessive alcohol use among sport participants prevails, in terms of health orientation, as a counterintuitive relationship (Wenner & Jackson, 2009). However, the literature also indicates that alcohol consumption is a central component of the sociocultural milieu of sport. As such, scholars suggest that a focus should be on how the social and cultural elements of sport life interact to structure drinking among sportspeople (Crocket, 2014; Palmer, 2011). From a theoretical perspective, however, the mechanisms responsible for this interaction remain ambiguous (Green et al., 2014). When one considers the *social psychology of drinking* (Chapter 1.1), it outlines how alcohol use imbues drinkers with social, cultural and identity qualities (Wilson, 2005). It follows that a social psychological framing of sportspeople's drinking can better elucidate and

interpret the social processes that link sport participation and alcohol use in order to advance the sport-alcohol literature.

1.3 The Current Thesis

This chapter has outlined how social, cultural, and contextual features can underpin the act of drinking. Given the impact of these features, the study of alcohol arguably requires a social psychological approach to understand its related behaviours. With this in mind, the purpose of this thesis is to examine the social processes that drive the relationship between sports participation and alcohol use. By adopting a social identity perspective (Tajfel & Turner, 1979), the thesis incorporates this view in order to explore how a sports group membership can shape its participants' alcohol behaviours. In doing so, it contributes a theoretical perspective to the issue of sport-associated drinking. Moreover, it seeks to add to the overarching psychological question of how social groups and identities can shape health behaviours, such as alcohol consumption. A detailed analysis of the significance of sport identities in relation to drinking is, therefore, the central focus of this mixed methods investigation.

The ensuing chapter (Chapter 2) presents an overview of the social identity perspective. An evaluation of existing theoretical models for alcohol-related health behaviours is included, concluding that a social identity approach is a novel and timely framework for this thesis in order to contribute to the sport and alcohol literature. The final section of this chapter presents the research questions that construct the thesis. Following this, Chapter 3 proffers some insight into the researcher's perspective regarding the importance of research for 'real-world' concerns and argues for the validity of a mixed methods approach of the thesis. The next four chapters present the empirical studies. Chapter 4 utilised secondary data analyses to explore the role of athletic identification and happiness among team and individual sports participants. Chapter 5 presents longitudinal data to investigate the interplay between personal and social sport-related identities, well-being, drinking motives, and alcohol consumption.

Chapter 6 draws on insights from the social identity tradition and adopts qualitative methods to provide a deductive analysis of sportspeople's drinking behaviours. The final empirical study in Chapter 7 utilises an experimental paradigm to investigate the psychopharmacological effects of intoxication on social identity processes, and compares sports and non-sporting participants. The thesis is consolidated in Chapter 8, where the chapter summarises the contributions of the research in order to present a theoretical and practical discussion to address the thesis question:

HOW CAN A SOCIAL IDENTITY APPROACH FRAME SPORTSPEOPLE'S ALCOHOL BEHAVIOURS, AND WHAT IS ITS UTILITY?

2 A Social Identity Perspective

Since its inception in the 1970's, social identity theory (SIT: Tajfel & Turner, 1979) and its counterpart self-categorisation theory (SCT: Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) have been applied to explore areas such as attitudes and behaviours, crowd theory, group cohesion, racism, and organisational psychology, to name but a few (c.f. Brown, 2000; Diehl, 1990; Ellemers, Spears, & Doosje, 2002). Together, SIT and SCT, constitute the *social identity approach* (Hogg & Abrams, 1988), the core tenets of both social identity and self-categorisation theory that describe (a) how and why social groups are psychologically meaningful, (b) how a salient social identity can influence an individual in terms of beliefs and behaviours, and (c) provide a mechanism to explain inter- and intragroup relations.

This builds on a long-standing social psychological appreciation that the self is fundamentally social and, therefore, our actions have socially valuable and symbolic meaning (Blumer, 1969; Cooley, 1902; Mead, 1934). Mead's foundational work to develop *symbolic interactionism* exemplifies how an individual's social world develops through the interactions with others. Moreover, experiences in the social setting shape one's sense of self, and help to guide and construct meaning to behaviours observed in the world. Therefore, from a social interactionist point of view, thoughts, feelings and behaviours are inherently symbiotic with what we encounter in our social lives (Blumer, 1969). In other words, a person and their environment mutually determine one another through the dynamic process of interaction (Charon, 2004). Importantly, it emphasises that human beings are active agents, constantly reflecting, interpreting, selecting and assimilating feedback from their social world (Blumer, 1969; Rosenberg 1979).

When considering the unique qualities alcohol holds for social occasion, it is evident that its consumption should not be studied independent from the meaning it provides for the environment in which they are performed. A guiding notion is that people's behaviours do not occur within a social vacuum (Berkman, 1995). Instead, social identity theorists argue that there is considerable interplay between the individual and their social context to determine how health behaviours are exacted (Tarrant et al., 2012). Accordingly, the social identity perspective is emerging as an explanatory and preventative model for substance use (e.g., Buckingham, Frings, & Albery, 2013; Frings & Albery, 2015). Its theoretical framework considers that mechanisms underpinning how individuals enact health-related behaviour are fundamentally influenced on a social level. That is, our thoughts and actions relating to our health are inextricably tied to our social lives. Importantly, it provides a set of theoretical principles that can help ascertain how to harness social influence for health promotion (Haslam, Jetten, Postmes, & Haslam, 2009). It is this theoretical view that scaffolds this thesis, and it is argued that this perspective is particularly appropriate to the study of alcohol behaviours in natural social groups, such as those found in sport.

2.1 Theoretical roots

In 1972, Tajfel defined social identity as "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership" (Tajfel, 1972, p. 292). From the now classic studies of the Bristol schoolboys and the minimal group paradigm (Tajfel, Billig, Bundy, & Flament, 1971; Tajfel & Turner, 1979), Tajfel and colleagues construed that we have a fundamental motivation to maintain or enhance our social identities and this, in turn, has value for our self-esteem. Social identities, therefore, form a *socio-emotional* mechanism of social influence, where a shared group membership and identification carries certain emotional valence for people's feelings of self-concept and social belonging (Sani, 2012).

Drawing upon preceding social psychological research (Festinger, 1954; Sherif, 1966; Tajfel & Wilkes, 1963), Tajfel argued that making salient the mere distinctions of 'us' and 'them' can change the way people think and act towards each other, and how they think about themselves. In their seminal studies, Tajfel and colleagues took a sample of schoolboys and asked them to estimate the number of dots on a screen. The participants were then split into two randomly assigned groups: one group were told that they overestimated the number of dots while the other group were informed that they had underestimated the number of dots. The task following instructed each boy to distribute rewards and penalties in real money to members each group, but that they would not know the identity of the individuals receiving these allocations. This procedure was refined across a series of studies, involving group categorisation resulting from artistic preference (Klee vs. Kandinsky; Tajfel et al., 1971), or arbitrary grouping such as a coin flip (Billig & Tajfel, 1973). In all these studies, after being categorised into groups, the boys clearly demonstrated actions that favoured members of their own group ('in-group') and discriminated against members of the other group ('out-group'), despite this behaviour providing no personal advantage to them. The evidence suggests that the schoolboys were prepared to allocate fewer points to either group if it allowed them to maximise an in-group *win* over the alternative strategy of acting in terms of the 'greater good' (maximising absolute profit).

What emerged from these studies was the theory that a salient group membership, whether arbitrary or superficial, promoted participants to differentiate their own group (in-group) from comparison groups (out-group). Tajfel (and his graduate student John C. Turner) proposed that the motivating principle underlying this group bias behaviour was the desire to positively distinguish one's own group in order to enhance feelings of social identity and self-concept (Tajfel & Turner, 1979; Turner, Brown, & Tajfel, 1979). Indeed, research found that group members reported feeling better about themselves

after engaging in actions resulting in intergroup differentiation (Lemyre & Smith, 1985; Oakes & Turner, 1980). From this, Tajfel (1979, 1982) outlined four underlying principles that govern these processes: *social categorisation* (perceiving a collection of individuals in group terms), *social identification* (adopting the identity of the group a person categorises him/herself to), *social comparison* (comparing own group against other groups), and *self-esteem* (maintaining group categories favourably against others). SIT, therefore, attempts to explain the thoughts and behaviours of individuals as embodied through their social group memberships. As such, it was the starting point for a more nuanced and *social* approach to individual behaviour and suggested the processes for how the individual and the social world interacted to produce different forms of behaviours (Tajfel & Turner, 1979).

The self-categorisation theory (SCT), a socio-cognitive extension of SIT, additionally sought to explain *when* social categorisations are made salient and *how* they are used to order one's social environment (Turner, 1985; Turner et al., 1987). SCT proposes that we hold a range of identities on varying levels that contain inclusion and abstraction features, allowing people to switch between one category to another whilst comparing and contrasting themselves to others (Turner, 1982). On a subordinate level, idiosyncratic identity, such as, "I am sociable" encompass personal self-attributions, which provides an identity on an individual level. In this instance, one's self-concept may arise, for example, from evaluating the number of positive interpersonal relationships they hold compared to their peers. The intermediate level provides inclusivity on a group basis. For example, "I am a Watford FC supporter" encompasses perceptions of social group similarities and differences and, therefore, one's self-concept may arise from seeing his/her football team as better than those in the Championship, but as the underdog against those in the Premier League. Finally, the superordinate level of self-categorisation considers the features of being a person on a broader *human* level. As such, "I am female" allows for categorisations in terms of gender and

subsequently shown, for example, to result in feelings of self-concept related to perceptions of gender performance (e.g., Steele, Spencer, & Aronson, 2002). A consequence here is that our self-categorisations can result in self-stereotyping, and thus is the proviso for expressing the thoughts and actions perceived to be significant characteristics of the group. Crucially, from this perspective, the salient identity will determine whether one would consider certain behaviours to be identity-congruent or incongruent, and act accordingly (Tarrant et al., 2012).

Given the range of social identities people can draw upon, an explanation is required as to which identity is most salient in a given context. As a cognitive-driven model, SCT proposes that categorisation occurs only when the group membership is internalised as both a *fit* (in reference to what extent the social category reflects reality and expectations) and *accessible* (in terms of whether they are frequently perceived and readily adopted in the social world; Turner, 1982). For example, a person is more likely to define him/herself as 'a rugby player' if this self-categorisation *fits* with what they understand being a rugby player to be (and how this differs from being a player in other sports), and whether one's interest in playing rugby is constantly made *salient* by reinforcement and acknowledgement in the given context.

When considering these aspects, it seems logical to propose that practices that emphasise identity *fit,* in an environment where identity is made constantly accessible and *salient,* will significantly determine how certain group characteristics are conveyed, received, and maintained. From a SCT perspective, groups, therefore, provide a source of information as to the appropriate ways to think and behaviour (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990). Through the process of self-categorisation, individuals can perceive themselves as group members and thus sharing the same characteristics and values as other members. In this way, social identity and self-categorisation principles provide a basis for referent informational influence, a conceptual model that articulated

how the formation, perception, and diffusion of group norms are contingent upon people's perception of their social group categorisations (Turner, Wetherell, & Hogg, 1989). Simply put, it suggests that normative group behaviours are the result of internalised and contextually salient self-categorisations (Turner et al., 1987). This cognitive transformation, in turn, influences thoughts and guides behaviour. To put it another way, people associate with behaviours that are congruent with their social identities, and these group characteristics shape individual behaviours (Abrams et al., 1990). As such, social identities are considered as processes served to structure individuals' perceptions and behaviours, "their values, norms and goals; their orientations, relationships and interactions; what they think, what they do, and what they achieve" (Haslam, 2014, p. 4).

These social identity processes extend as an explanatory framework to underpin collective action research (Van Zomeren, Postmes, & Spears, 2008). This application suggests that a shared group identity can transform relationships between individuals in order to act together for a common shared goal (Drury & Reicher, 2000; Turner et al., 1987). In terms of intragroup relations, a shared social identity allows for modes of social regulation and an exercise of collective power (Abrams & Brown, 1989; Drury & Reicher, 1999). For example, organisational psychologists advocate that a shared social identity form the platform from which an organised, motivated and successful work group life is mobilised from (Ashforth & Mael, 1989; Hogg & Terry, 2000).

Elaborations on social identity processes have also unveiled the existence of 'self-regulated' cultures in highly defined groups (Reicher, 1984, 1996; Reicher, Stott, Cronin, & Adang, 2004; Stott & Drury, 2000), demonstrating how social groups can regulate their members' actions in-line with the group identity (Levine, Lowe, Best, & Heim, 2012; Levine, Prosser, Evans, & Reicher, 2005). The focus of such studies typically elaborates on social identity models of collective

behaviour within an intergroup context (e.g., Elaborated Social Identity Model; Drury & Reicher, 2000; Reicher, 1996). However, they bring to fore the power of social identities as an underlying force for collective mobilisation, intrinsic motivation, and social and self-monitoring in terms of group values and in-group identity (Abrams & Brown, 1989). This being the case, it also suggests that they can act as a driver for behaviours performed during everyday interaction framed within intragroup processes. In this way, it is evident that social identities provide informational influence to guide its members' behaviour, even in the absence of others (Reicher, 1984; Turner, 1982).

Together, SIT and SCT present a model of the interactive processes between individuals and their social world (Turner & Oakes, 1986). Moreover, they highlight how groups of people may behave in a similar or collective manner, by reference of shared group features or norms. Thus, social identity literature concurrently discusses how social groups can both be a source of positive social support that can benefit health (Haslam et al., 2009), and an environment that can endorse harmful behaviours through the perpetuating *fit* and *salience* of risky identity-framed health norms (Dingle, Stark, Cruwys, & Best, 2014; Schofield, Pattison, Hill, & Borland, 2001).

As such, there is a growing body of work advocating that health behaviours can be tied to social identity principles, where performing certain behaviours holds psychological significance that corresponds with people's social environment (Falomir-Pichastor, Toscani & Despointes, 2009; Laverie, 1998; Schofield, Pattison, Hill, & Borland, 2003). Group memberships imbue us with thoughts and behaviours specifically relevant to our social identities. It is argued that these group processes can serve to encourage or dissuade certain behaviours through identity framing (Berger & Rand, 2008). For example, alcohol use among students is influenced by whether it is important for their social identities (Griffin et al., 2009) and, therefore, alcohol-related normative information may

be resisted if drinking is an identity-defining behaviour (Livingstone, Young, & Manstead, 2011). Thus, scholars suggest that people (dis)engage in health-related behaviours due to their identity-affirming features (Oyserman, 2009; Tarrant et al., 2012). From this perspective, social identities provide a conduit through which the social-cultural environment influences the individual (Reicher, Spears, & Haslam, 2010). As such, this forms the theoretical lens to focus the study of health behaviours in order to help explain why certain groups are high-risk for alcohol misuse.

2.2 A social identity approach to health

Empirical evidence suggests a number of avenues through which social identity processes can significantly affect physical and mental health outcomes (c.f. Haslam et al., 2009). The broad themes of such research outline how social identities can affect the appraisal of health and illness symptoms, provide a means of social support and a coping resource, affect clinical outcomes, and determine whether people (dis)engage with health-related behaviours (for an exhaustive commentary, see Jetten, Haslam, & Haslam, 2012). For example, female students were likely to seek medical treatment for a knee injury if they were encouraged to define themselves as sports science students rather than as women (Levine & Reicher, 1996), and male rugby players changed their evaluation of injury scenarios if they knew their responses were being compared to a different outgroup (women vs. non-rugby men; Levine, 1999).

What social identity theorists would highlight here is that health behaviours are not solely determined on what is physically present (e.g., a painful knee), but perceived alongside identity-related values in order to determine the next course of action (e.g., whether to seek medical treatment). Moreover, it re-emphasises the psychosocial dimensions of health and illness experience (Parsons, 1951). By viewing health status, health care and health behaviour as

conditional social and cultural perceptions, it intimates to how social psychological approaches can aid health research (Timmermans & Haas, 2008).

In this way, social identity-based perspectives on health suggest that our interactions within our social environments play a key role in determining our health behaviours (Haslam et al., 2009). For example, studies have found that involvement in social groups formed of non-using peers substantially reduced drink-related activities among alcohol dependent individuals (Bond, Kaskutas, & Weisner, 2003; Kelly, Stout, Magill, & Tonigan, 2011). Similarly, in non-clinical populations, people's orientations towards healthy behaviour, such as reducing alcohol intake, are most promising when identity-related features frame the behaviour (Berger & Rand, 2008; Tarrant & Butler, 2011). Moreover, bodies of work have demonstrated that various forms of information (e.g., health warnings, environmental campaigns, political advertising) have an intended effect only with those who are perceived to share a common identity with the target audience or source (Backer, Rogers, & Sopory, 1992).

Research along these lines suggests that manipulating, or 'shifting', identity salience towards a positive health-related identity can reduce engagement in unhealthy behaviours, such as consumption of junk food and alcohol (e.g., Berger & Rand, 2008). Indeed, Tarrant and Butler (2011) found that students could be prompted to engage in future health promoting behaviours (reduce alcohol and salt intake) if they were encouraged to self-categorise in terms of their national identity (British) instead of their student identity. Furthermore, when compared to a healthy out-group, the same participants were more likely to form upward social comparisons and respond with greater intentions to perform healthier behaviours (Tarrant & Butler, 2011, study 2). Such evidence provides empirical support for the notion that an applied social identity approach can be an effective strategy for orientating individuals towards healthier behavioural choices. From a social identity perspective, it is the

psychological *value* of a person's identity that influences their behaviour. Crucially, this distinction is what sets it apart from hitherto more dominant social cognitive health models, in that it emphasises that behaviours are intertwined with one's social belonging (environment) and self-concept (emotion; Tarrant et al., 2012).

2.2.1 Previous approaches to alcohol behaviours

Psychosocial health models

Psychological examinations of health behaviours over the past few decades have focused primarily on utilising a number of social cognitive models. This group of theories propose that one's social beliefs, perceptions, and representations will determine health behaviour, i.e. their *social cognitions.* The following brief overview assesses critically these theoretical approaches and argues that the merits of such models may be better acquainted under a social identity framework in order to address the alcohol-related concerns of this thesis.

One of the first theories of health behaviour was the health belief model (HBM; Becker, 1974; Rosenstock, Strecher, & Becker, 1988). The HBM proposes that an individual's health-related behaviour depends on the perceptions of six areas: severity; susceptibility; benefits for action; barriers to action; motivation; and self-efficacy (Rosenstock et al., 1988). The model outlines a belief-behaviour link, where a person's *beliefs* surrounding health-related threat and the costs and benefits of personal actions aimed at reducing this threat, orientate health-seeking behaviours (Janz & Becker, 1984).

In the same vein, the protection motivation theory (PMT; Rogers, 1975; Maddux & Rogers, 1983) suggests that the most persuasive strategies for encouraging health-promoting behaviour utilise the arousal of fear. It is posited that this arousal of threat to health motivates adaptive and protective action (Stainback & Rogers, 1983). According to both HBM and PMT, a perceived threat

will initiate evaluations of health protective strategies and subsequently determine the individual's engagement with such behaviours.

As such, the utility of these models heavily features the role of information and education in order shape individual beliefs about illness severity, susceptibility, and the available health protective strategies. Most prominently, the models have guided population-based interventions to deliver information or persuasive messages to induce illness threat and encourage health-related action (Janz & Becker, 1984). Yet, whilst the student population typically receives a greater number of alcohol educational programmes and interventions, they also continue to exhibit elevated rates of hazardous alcohol use (Larimer & Cronce, 2007). One particular study presented an awareness intervention by sending cards to students before their 21st birthday about the dangers of excessive drinking (Smith, Bogle, Talbott, Gant, & Castillo, 2006). The *Be Responsible About Drinking* (B.R.A.D.) cards related the story of a student who died as a result of excessive consumption. To test for informational differences, other cards sent to different cohorts provided data on others' alcohol behaviours for similar events in order to correct misperceptions on drinking norms and contained tips for protective drinking behaviours. However, no reduction in self-reported drinking was found between any of the card conditions, nor when compared against the control condition. Larimer and Cronce's review (2007) concludes that techniques to rouse health concerns are not efficacious for changing alcohol behaviours in this particular context.

Taking forward the belief-behaviour link identified by the HBM and PMT, a dominant theoretical model within health-related research is Ajzen's theory of planned behaviour (TPB; Ajzen, 1985, 1991). Fathered from the theory of reasoned action (TRA; Ajzen & Fishbein, 1975) it posits that the best predictor of behaviour is one's *intention* to perform the behaviour and that these intentions are influenced by individual's beliefs and evaluations (i.e. attitudes) of

the behaviour and its outcomes, perceived social pressures, and perceived behavioural control. Moreover, TRA/TPB provides the welcome consideration of *social* influence missing from prior health models, where individuals will evaluate perceptions about what others (e.g., friends, family, society) expect relating to the behaviour in question alongside their own attitudes and intentions. As such, the TPB/TRA model seeks to provide a predictive account of behaviour, whereby attitudes, subjective norms and behavioural intentions combine to determine health behaviour.

When applied, research suggests that TPB has strong predictive relationships for activities such as exercise (Hagger, Chatzisarantis, & Biddle, 2002), and health screening attendance (Cooke & French, 2008). However, different (and weaker) patterns of associations are found between its pathways for predicting behaviours such as smoking (Topa & Moriano, 2010), and alcohol consumption (Cooke, Dahdah, Norman, & French, 2014). For example, the patterns of interaction between attitudes, perceived behavioural control and subjective norms were associated negatively to the frequency of drinking in some studies (Norman, Bennett, & Lewis, 1998), but positively associated in others (Johnston & White, 2003). Moreover, a study using TPB to investigate student binge drinking found that negative behavioural control beliefs were significant independent predictors for binge drinking, and subjective norms less so (Norman et al., 1998). Norman and colleagues suggest that alcohol use as a behaviour may be seen as something that is determined outside of volitional control, and instead shaped by external features.

When assessing the sufficiency of this model, however, a number of additional variables have received considerable attention (e.g., Connor & Armitage, 1998; Eagly & Chaiken, 1993). One important extension is the belief-salience development. The TPB is constructed from the underlying concept that an individual's beliefs and attitudes will go on to affect their intentions, and

therein their behaviours (Fishbein, 1967). However, it is also assumed that a person may possess a number of beliefs with regard to the behaviour and that only some of these beliefs are likely to be salient in the given context. With this in mind, the saliency of one's beliefs may be elicited on different levels depending on to what extent the context may activate them. For example, previous research has attempted to adopt belief elicitation paradigms in order to map how salient beliefs may predict attitudes (Agnew, 1998; Petkova, Ajzen & Driver, 1995), and suggests that salient personal beliefs are important on attitudes and intentions. Further to this, van de Plight and Eiser (1984) argued that the beliefs most salient to a specific group of people present a common set of modally salient beliefs that affect attitudes. The various strands that direct this development, therefore, hints at the need to address the saliency in which certain beliefs may be commonplace within certain groups of individuals.

Remaining briefly on the idiosyncratic concerns underpinning behaviour, the original formulation of the TPB was removed from considerations to do with the individual's own personal beliefs about whether the behaviour is good/right or bad/wrong. According to Manstead (2000), moral norms can be defined as one's socially determined and socially validated values attached to a particular behaviour. For example, Raats, Shepherd and Sparks (1995) found that perceived moral obligation affected intentions and predicted attitudes when it came to reducing fat within diets. Similarly, the affective component that underlies behaviours and attitudes is shown to be an important moderator in determining how TPB constructs. Studies that examine what was classified as socially undesirable behaviour (e.g., cannabis use; Conner & McMillan, 1999) saw an interaction between perceived behavioural control and the intention-behaviour relationship, whereby those who reported higher control over cannabis use felt they could desist from using compared to those with lower control. However, as touched upon above, Norman et al. (1998) found that perceived behavioural control was associated negatively with binge drinking within their student

sample. As a socially desirable behaviour, the authors suggest that the positive and external attitudes towards alcohol use may interact with the variables in TPB to influence intentions to drink in certain ways.

Arguably, then, these equivocal findings suggest that certain health behaviours, and explicitly with regard to alcohol use, may be influenced by contextual features that these social cognitive models fail to adequately conceptualise (Conner & Armitage, 1998; Johnston & White, 2003). Ajzen himself reflects that it would be apt for TPB-based research to investigate more closely the interactions between the individual and the social context in eliciting beliefs and behavioural outcomes (Ajzen, 2011; Ajzen & Sexton, 1999). More recently, Sniehotta and colleagues (2014) commented on the validity and utility of TPB, suggesting that a significant limitation is its inability to *explain* behaviour (Sniehotta, 2009; Sniehotta, Presseau & Vera Araújo-Soares, 2014). In this regard, the conceptual model of TPB/TRA does little to elucidate why specific behaviours and certain populations can affect the performance of the model (Hagger, Chatzisarantis, Biddle & Orbell, 2001; McEachan, Conner, Taylor & Lawton, 2011; Sheeran, Conner & Norman, 2001). In addition, researchers have critically evaluated the ability for the model variables to predict consistently the explained variance of behaviour and behaviour intentions (Armitage & Connor, 2001; Ogden, 2003).

In light of these issues, some social cognition researchers have argued for the efficacy of such models, but only if they are extended (e.g., Conner, 2015; Gibbons, Gerrard, Ouellette, & Burzette, 1998; Trafimow, 2000). Terry and Hogg (1996) proposed that the role of social norms in attitude-behaviour relations should be reconceptualised within a social identity framework. Their empirical research found that perceived behavioural norms influenced intentions to exercise and use sunscreen protection among participants who identified strongly with the reference group, but *only* when the behaviour was relevant to the

reference group (Terry & Hogg, 1996). Moreover, participants were more likely to have *actually* engaged (i.e., predicted reported behaviour) in the act when they perceived it to be self-defining (Terry, Hogg, & White, 1999). Further work by Chatzisarantis et al. (2009) found that this interaction between group norms and group identification was directly predictive of participants' physical activity. The authors suggest that social identity exerts a unique effect on behaviour, due to the impact of group norms and environmental conditions that can usurp individual-based deliberative processes (Chatzisarantis, Hagger, Wang & Thøgersen-Ntoumani, 2009). It seems, therefore, the logical extension of the TPB/TRA models is to consider a social identity perspective.

A further elaboration provided by Gibbons and colleagues (1998) outline the prototype/willingness model. The basis for this extension is to add a second *non-intentional* pathway to the attitude-intention link and outlines how engaging in health behaviours relies on one's willingness to perform the action. Incidentally, this willingness is determined by the extent to which the individual perceives his/herself to be similar to others who perform the behaviour in question (Rivis, Sheeran, & Armitage, 2011). This suggests that our behaviours are reactive to the social situation and, moreover, influenced by perceived similarity to a person believed to imbue the behavioural prototype.

Notably, then, the elements of this extended pathway may be considered analogous to social identity principles, whereby identification and behaviour are based on self-categorisation processes which provide people with (a) the view that group members share similar values and attitudes, and (b) the drive to engage in behaviours that are seen to be identity congruent (Turner et al., 1985). Whereas Gibbons and Gerrard (1995) refer to this as a social *image* and how accepting one is about acquiring that image, social identity theorists would describe this as a social *identity* that comes from positively belonging to a social group (Abrams & Hogg, 1990). Behaviour prototypicality, therefore, flows from

the perception of this social identity and embedded within identity internationalisation. By this reasoning, it is argued that the components and extensions discussed can ostensibly be subsumed within the social identity framework.

Moreover, a broad critique related to the social cognitive models discussed above is that they do not (or inadequately so) take into account the social context in which behaviours are being performed, or what social references are having an effect (Conner & Armitage, 1998; Johnston & White, 2003; Rivis, Sheeran, & Armitage, 2009). Their roots are grounded within the cognitive traditions, where behaviours are understood to be determined by a set of rational psychological processes operating within the minds of the individual (Fishbein & Middlestadt, 1989). As such, they are critiqued for holding little consideration for affective influences (Conner, Godin, Sheeran, & Germain, 2013; Lawton, Conner, & McEachan, 2009), or one's social realities as a (dis)enabling feature of behaviour engagement (Kippax & Crawford, 1993). To refer briefly back to *symbolic interactionism* mentioned at the start of this chapter, it is posited that our actions constitute a shared meaning within our social environment (Blumer, 1969; Kippax & Crawford, 1993). Moreover, from a social identity perspective, our actions imbue us with *self-concept* in terms of their significance for successful group membership (Haslam et al., 2009). As such, informational processes regarding health may therefore take place in the context of interactions with others (Parsons, 1951). With this in mind, it is argued that the conceptualisation of health behaviour within the social cognition models mentioned in this section has overlooked the social nature of human action (Jetten et al., 2012).

Moreover, a clear distinction for alcohol researchers is that drinking is inherently *social* in nature, therefore, the features and values this group-based behaviour express are of imperative importance (Griffin et al., 2009; Wilson, 2005). As such, it is noted that social cognitive models such as HBM, PMT, TPB,

etc. may hold adequate predictive value in determining individual-based health behaviours, for example, physical activity (Hagger et al., 2002) and health screening attendance (Cooke & French, 2008). Notably, however, they appear to hold diminishing power when the behaviours in question are rooted with social prominence, such as smoking (Topa & Moriano, 2010) or drinking (Cooke et al., 2014). Researchers now criticise the health initiatives aimed at reducing alcohol use among young people as focused too heavily on the harms and risks to personal health, whilst the positive social features associated with its use tend to be unheeded (Fry, 2011; Harrison, Kelly, Lindsay, Advocat, & Hickey, 2011; Sheehan & Ridge, 2001). With this in mind, strategies to reduce risky alcohol use may be best suited to emphasise the social value and consequences of excessive drinking on one's social relationships and identity. For example, qualitative interviews conducted by de Visser and colleagues found that people's description of drinking moderators centralised on not ruining the group's reputation, and being a 'good drinker' (de Visser, Wheeler, Abraham, & Smith, 2013). As such, it is argued that there is a need to make positive use of these aspects of sociality and group-based activity, rather than focusing on health 'threats' (de Visser et al., 2013; Duff, 2008).

In sum, the critiques surrounding traditional social cognitive models converge on their lack of consideration for social influence, context, and interactions between participating members (Tarrant et al., 2012). What the current overview highlights is the need to attend to the social features that underpin alcohol behaviours. This point is particularly relevant to the present thesis. The literature on sport-associated drinking typically details how the social milieu of the sport environment and teammate influence may be a central feature in explaining rates of elevated consumption in this subgroup (Lisha & Sussman, 2010; Martens et al., 2006a). Therefore, from this perspective, a more socially orientated framework may better guide alcohol research in this context. With this in mind, it is argued that a social identity perspective can better formalise

considerations of one's social environment and group life that may affect health behaviours as already noted in the health literature (Terry et al., 1996; Chatzisarantis et al., 2009).

Social norms

Of the strategies adopted for reducing alcohol consumption, social norms theory has received the most attention in recent years (Borsari & Carey, 2001). Conceived by Perkins and Berkowitz (1986), it was the result of a series of American studies consistently finding that students tend to overestimate alcohol consumption among their peers. In turn, this exaggeration was predictive of how much individual drinking occurred (Haines & Spear, 1996; Perkins, 2002; Perkins & Berkowitz, 1986; Perkins, Meilman, Leichliter, Cashin, & Presley, 1999).

Its underpinnings can be traced back to Festinger's social comparison theory (1954), which proposes that as social beings we are inherently driven to evaluate ourselves against others in order to define oneself with what is and what is not appropriate. Thus, according to the theory, if discrepancies arise between the evaluator and the comparison group, individuals are driven to reduce this disparity by changing their own behaviours to order to attain social conformity. However, misperceptions of others' beliefs and attitudes can arise through *pluralistic ignorance,* where people erroneously believe that others accept a certain group norm, whilst spurning it personally (Miller & McFarland, 1991; Prentice & Miller, 1993). In order to reduce the dissonance between one's private attitudes and what they perceive others to hold, individuals will conform to the social norm.

Subsequently, social norms interventions seek to address normative misperceptions by correcting the exaggerated beliefs surrounding peer drinking norms. Its central component is to provide feedback, in the form of *actual* majority attitudes and behaviours, in order to re-align normative perceptions more closely with personal attitudes, and to remove the discord resulting from

social comparisons (e.g., DeJong & Linkenbach, 1999; Haines & Spear, 1996). In this way, a social norms framework conceptualises social influences in the form of *external* pressures to conform to an individual's perception of what they *ought* to do. This is particularly discernible in the distinction between descriptive and injunction norms (Cialdini, Kallgren, & Reno, 1991). The former represents norm content relating to the frequency the behaviour is performed, i.e., one's perception corresponding to the quantity their peers drink, and the frequency they consume alcohol. The latter refers to the perceived approval of the behaviour, i.e., the acceptability of drinking by peers (Larimer, Turner, Mallett, & Geisner, 2004). Therefore, if an individual perceives others to drink more, and that their peers approve of this heavy drinking, then, according to the model, they will consequently have to align their own alcohol behaviours with this perception in order to achieve positive evaluations of oneself (Festinger, 1954; Perkins, 2002).

The utilisation of social norms theory is widespread among university college campuses and has been adapted to tackle alcohol use among specific high-risk subgroups (Far & Miller, 2003). Sporting groups are suggested to be particularly peer-intensive and insular, where the salience of fellow teammates' attitudes and behaviours are constantly accentuated due to the frequency of playing and training together (Thombs, 2000). As a result, Martens and colleagues (2006c) suggest the impact of norms in shaping personal behaviour may be particularly strong for sportspeople given the value and relevance of the sports group. Similar to the general student population, research with student-athletes shows they tend to perceive that their teammates consume more alcohol than themselves (Thombs, 2000). When compared to non-athletes, those participating in sport reported higher perceptions of peer drinking, as well as higher peer approval of drinking, which, in turn, related to heavy personal drinking (Hummer, LaBrie, & Lac, 2009; Turrisi, Mastroleo, Mallett, Larimer, & Kilmer, 2007). Moreover, perceptions of sporting friends' drinking norms appear to have

the greatest influence on sportspeople's own alcohol consumption over any other reference group (Dams-O'Connor et al., 2007; Lewis & Paladino, 2008; Martens et al., 2006c).

As such, the social norms work among student sportspeople by Martens and other researchers outlines how peer influences in sports have a strong impact on personal drinking. Notably, however, it does not *explain* the already prevalent problem of elevated drinking typically observed in this context. It might be argued that fellow student-athletes are perceived to drink more because they *are* drinking more, compared to their non-sporting counterparts (Leitchliter et al., 1998; Nelson & Wechsler, 2001; Partington et al., 2012). Moreover, social norms proffer little explanation as to *why* alcohol is perceived as more accepted among sporting peers. The selectivity of the reference group on influencing personal behaviours (Dams-O'Connor et al., 2007; Martens et al., 2006c) suggests that normative influence may be more nuanced than the social norms supposition of broad misperceptions that instigate conformity (Borsari & Carey, 2001; Berkowitz, 2004).

Further, when applying this approach to strategies aimed at reducing hazardous drinking in sportspeople, outcomes have been mixed (Perkins & Craig, 2006; Thombs & Hamilton, 2002). Foremost, there are uncertainties around identifying what kind of normative information is most effective (Thombs & Hamilton, 2002). Personalised feedback has been found to be more successful than general feedback, or basic alcohol education programmes (Doumas, Haustveit, & Coll, 2010; Doumas & Haustveit, 2008; Martens, Kilmer, Beck, & Zamboanga, 2010). Thus, social norms-based interventions seem to be most effective when using fellow student-athletes or 'sportspeople', rather than 'general student' or 'friend' as a reference group (Dams-O'Connor et al., 2007; LaBrie, Hummer, Grant, & Lac, 2010). Ultimately, it seems that norms are most predictive of behaviour when they are framed within a specific in-group

reference, and when that group is personally relevant (Terry & Hogg, 1996). This suggests that it is not sufficient to relay social influence as framed in terms of external pressures to conform, but that it can be selected, influenced, and then potentially expressed, by more intrinsically valued features.

With this in mind, normative influence within the social identity tradition is qualitatively distinct to the conceptualisation and impact it is given in social norms theory. Social norms within the social identity perspective carry prescriptive weight, but not in terms of what individuals perceive ought to be done *just because* of the frequency others are observed to be doing so. In contrast to the social norms tradition, normative behaviours here are the result of internalised self-categorisation by group members (Turner, 1982). In this process, individuals will self-stereotype, and apply the norms and values of the group to him/herself. Thus, the experience of norm-related content, the acceptance of norms, and the exhibition of normative behaviour are seen to be bounded within people's social identities and self-categorisations. Consequently, these will vary in-line the saliency and distinctiveness of such identities depending on the context and social comparisons at a group level, rather than individualised evaluation. In other words, norms are intrinsically valued in terms of our social categorisations, rather than simply a prescriptive pressure to conform to the thoughts and behaviours of an aggregate of individuals (Hogg & Reid, 2006). Arguably, this may be the reason why social norms campaigns can report a reduction in perceived norms behaviour, however, no (long-term) reduction actual drinking behaviours (Clapp, Lange, Russell, Shillington, & Voas, 2003; Martens et al., 2010; Thombs & Hamilton, 2002). If seen as an internalised set of values and beliefs, changing norm-related behaviours with superficial information-based strategies of social norms interventions may have limited scope.

Recently, research has moved on from the indiscriminate focus of social normative compliance to incorporate the mediational effects of social identification on alcohol-related norm acquisition (Livingstone et al., 2011; Neighbors et al., 2010; Reed, Lange, Ketchie, & Clapp, 2007). For example, Reed at al. (2007) found peer identification moderated the relationship between perceived peer norms and alcohol consumption. That is the extent to which normative perceptions predict alcohol consumption depends on the strength in which the individual identifies with the reference group the norm is based. This suggests that alcohol norms are linked with drinking behaviours when (a) the individual identifies with the group the norm refers to, and (b) only when the norm is perceived as accepted by the group (Neighbors et al., 2010). What is more, Livingstone and McCafferty (2015) suggest that the *importance* of alcohol consumption as group defining makes it unique and differentiates it from other health behaviours, such as exercise or sexual health. In support of this assertion, they showed that highly identified individuals are likely to resist manipulations in normative information to do with others drinking, however, this interaction was not observed when the behaviour in question was caffeine use.

Livingstone and McCafferty's (2015) assertions may notably translate to the examination of alcohol use within the context of sport. The longstanding ties between sport and alcohol present a meaningful and cultural history that expounds the existence of sport-related drinking (Stainback, 1997). For example, the cultural drinking practices surrounding the 'prodigious' alcohol consumption among Australian rugby league footballers and spectators suggest that drinking is an importance part of the traditions of 'mateship' associated with the game (Lawson & Evans, 1991). As such, belonging, identity and social capital attached to being involved with a football team may rely on the cultural ties with alcohol to define one's involvement with the team (Palmer & Thompson, 2007). In this respect, if the activity is considered identity-defining, social norms interventions may be of little consequence. Livingstone and colleagues (2011) suggest that these

strategies may even backfire as individuals perceive normative information to threaten their identity and seek to reinstate positive social group perceptions. In other words, high identifiers in social groups that value alcohol use may drink more in order to combat the threat to group identity posed by 'corrective' social norms

This consideration brings us back round to the utility of norms and social influence, and advocates that they may be better conceptualised as group-level processes that shape behaviour via our social identities, as opposed to mere social compliance (Turner, 1991). As such, the social identity perspective presents a set of mechanisms that outlines when and why high-risk drinking groups, such as students and student-athletes, are more disposed to social influence when their socialisation and interactions are contained within such an insular context (e.g., campus lifestyle/weekly training). Moreover, in adopting a social identity perspective, it suggests how groups have self-regulatory aspects that can encourage or discourage its members' behaviours (Reicher et al., 2004), and how social identities can be utilised to bring about behaviour change (Drury & Reicher, 2000). When considering the expansive social identity literature, it presents a conceptual model that can explain, predict and change behaviour through the operationalisation of group processes (Haslam, 2014).

As mentioned in the preceding section, qualitative studies have added considerable insight as to how drinking behaviours are performed within social groups (de Visser et al., 2013; Griffin et al., 2009; Sheehan & Ridge, 2001). Clayton and Harris (2008) highlight that students on a university football team perceived drinking alcohol with the team as an indication of commitment to the group; their drinking practices enabled them to socially distinguish themselves from others and allowed themselves to unite under a group identity. Therefore, it seems that alcohol use has dual features in both defining identity and being defined *by* identity. It stands to reason that if social identities impact so

significantly on its member' behaviour, they may be utilised to aid strategies for managing alcohol behaviour. In sum, after considering the influence of social norms within the context of sport, it is argued that it may be more appropriate to consider a social identity approach to explore the social processes contained within sport group membership.

Alcohol expectancies and drinking motives

One strand of research has focused specifically on understanding the relationship between environmental influences, cognitions and drinking behaviours (Brown, Goldman, Inn, & Anderson, 1980; Oei & Baldwin, 1994; Stacy, Widaman, & Marlatt, 1990). Based on a social learning perspective, the alcohol expectancy approach suggests that individuals drink due to their learned expectations of the effects of alcohol use from past experiences. In turn, these expectancies drive future consumption (Goldman, Brown, & Christiansen, 1987; Jones, Corbin, & Fromme, 2001). As such, the theory proposes that a person's alcohol consumption will be governed by what they expect will happen by consuming alcohol, and their motivation to achieve these outcomes (Jones et al., 2001).

Empirical research indicates how heavy drinkers associate arousal and positive social effects with drinking (Dunn & Earleywine, 2001; Rather & Goldman, 1994), and that positive expectancies are found to be greater predictors of alcohol consumption (McMahon, Jones, & O'Donnell, 1994; Stacy et al., 1990). In a similar fashion, studies have found that sportspeople's alcohol expectancies predict heavy drinking and alcohol-related behaviours (Zamboanga & Ham, 2008; Zamboanga, Bean, Pietras, & Pabón, 2005), with positive expectancies accounting for a larger proportion of the variance than negative expectancies (Zamboanga, Horton, Leitkowski, & Wang, 2006). It is interesting to note that despite reporting experiencing greater alcohol-related harms, the female sports participants in these studies tend to hold more positive alcohol expectancies.

Such findings suggest that sportspeople's experience of negative alcohol-related outcomes do little to orient them away from associating positive expectancies with drinking. As such, scholars argue that it would be astute to consider the meaning and values student sportspeople attach to sport-related drinking, and what processes may prevent the attribution of negative alcohol outcomes to their alcohol expectancies (Olthuis, Zamboanga, Martens, & Ham, 2011; Zamboanga & Ham, 2008).

The social context also appears to influence alcohol expectancies, for example, outcomes that are more positive are perceived when presented with the opportunity to drink in groups (Thombs, Beck, & Pleace, 1993). It seems that expectancies are guided not only by a person's direct (or indirect) experiences with alcohol but also by the value of the outcome in relation to the social environment in which the drinking takes place. Extending this, Oei and Baldwin (1994) proposed the influence of a 'cue state', which relays the internal or external cues for alcohol use, for example, whether it is to facilitate social interactions at a party, or for tension reduction after a hard day's work. According to these pathways, people are motivated to consume alcohol due to its ability to attain the expected and desired outcomes appropriate for the context in question. As a social cognitive theory, it therefore presents a model that suggests some form of 'mental algebra' is undertaken (Goldman, Brown, Christiansen, & Smith, 1991), where the positive and negative expectancies are weighed against each other in a rational decision-making process to motivate alcohol consumption.

This overlap of expectancies and motives warrant a brief assessment. Motivational models of alcohol use posit that drinking behaviours are motivated by different needs and, therefore, seeks to provide insight as to how and when an individual may drink (Cooper, 1994; Cox & Klinger, 1988). These needs, or functions, are characterised by a unique pattern of antecedents and perceived

consequences (Cutter & O'Farrell, 1984). For example, individuals who drink primarily for social reasons may subsequently expect to experience positive outcomes related to sociality and interpersonal interactions. On the other hand, individuals who express motives for drinking as a coping mechanism may subsequently learn to use alcohol to manage stressful emotions (Cooper, Russell & George, 1988). As such, alcohol use may be characterised by the functional attributes it has on social and emotional experiences (Cooper, Frone, Russell, & Mudar, 1995).

In terms of predicting alcohol use, it seems that alcohol expectancies (i.e., perceived consequences) can guide drinking motives (Cronin, 1997), whilst their antecedents (past experience, context) can remain identical. Indeed, drinking motives are found to mediate the relationship between alcohol expectancies and drinking (Kuntsche, Knibbe, Engels, & Gmel, 2007). Alcohol expectancies and drinking motives therefore ostensibly converge as a subjectively derived decisional process for alcohol use based on personal experience, expectancies, and situation (Kuntsche, Knibbe, Gmel, & Engels, 2005).

Considering, then, the role of personal and contextual cues in shaping alcohol expectancies and drinking motives, there has been little in the way of examining how social identities can precede these antecedents. The sport-alcohol literature notes that team-associated motives and positively reinforced outcomes are among the strongest predictors of sportspeople's alcohol consumption (Martens, Watson, Royland, & Beck, 2005; O'Brien, Ali, Cotter, O'Shea, & Stannard, 2007). However, research unpacking these social and team-related motives is sparse considering the general supposition that drinking is often a socially orientated activity (Gordon, Heim, & MacAskill, 2012; Heath, 1976). A systematic literature review (Zhou & Heim, 2014) uncovered only a few studies that assessed group-specific motives for engagement in alcohol use. These studies generally surmise that sportspeople view drinking as important for encouraging

team cohesion (Zhou, O'Brien, & Heim, 2014) and that social and enhancement drinking motives are important predictors for alcohol behaviours (O'Brien, Hunter, Kypri, & Ali, 2008). As such, authors have identified a need for further research into group-oriented motives, and how these correspond to social identities, when considering the motives for sport-related drinking (Martens et al., 2006a; Zhou & Heim, 2014).

2.2.2 An applied social identity approach

Contemporary alcohol researchers have identified drinking behaviours as reflexive of the social, cultural, and even geographical environment alcohol is used in (Jayne, Holloway, & Valentine, 2006; Measham, 2004). Ostensibly, this is comparable to the social identity emphasis on the interaction between the social situation and identity salience, where social identities are a product of social-contextual cues (Turner et al., 1987). The reflections and considerations of the previous section have outlined the need for a closer examination of the group-level processes acting to shape alcohol behaviours. A fundamental notion is that, as social beings, people strive to belong to their social world and fulfil positive social relationships (Baumeister & Leary, 1995; Berkman, Glass, Brissette, & Seeman, 2000). A social psychological view of drinking (see Chapter 1.1) underscores how alcohol can carry such social attributes. Logically, then, it follows that these two aforementioned aspects require further examination as interactive components.

Moreover, to feel part of a group, and connected to others, has positive implications for self-esteem and our sense of self (Baumeister & Leary, 1995; Hogg & Abrams, 1988). There is evidence to suggest that in contexts where group memberships encourage unhealthy behaviour, the benefits of social belonging and identity for social and psychological wellbeing may outweigh the costs to health (Dingle et al., 2014; Howell et al., 2014). For example, adolescents appear to be more likely to take up smoking if they identify with a smoking peer group

(Schofield et al., 2001), and newly forming groups demonstrate increased levels of alcohol consumption alongside reported social wellbeing (Howell et al., 2014). Thus, the social identity perspective provides an outline as to why there are potential positive outcomes associated with alcohol use (Molnar, Busseri, Perrier, & Sadava, 2009), and how these may be important for continuation of identity-defining behaviours such as drinking (Livingstone & McCafferty, 2015; Palmer & Thompson, 2007). More specifically, it provides a conceptual framework for investigating the context where those who regularly engage in health-promoting behaviours (e.g., sports participation) may also engage in behaviours that are detrimental to their health and performance (e.g., hazardous alcohol consumption).

As such, the integration of social identities within health research has emerged, as its mechanisms for *social connectedness, behaviour orientation*, and *identity change* appears as valuable resources linked to substance use cessation (e.g., Buckingham et al., 2013), and determining people's mental and physical wellbeing (Haslam, et al., 2009; see Schwarzer & Peterson, 2008 for special issue). In this respect, the significance of a defined group identity, such as ones held by sports teams (Branscombe & Wann, 1991; Hogg & Hardie, 1991), presents an opportunity to examine how identities influence its participants' health and wellbeing. Inferences from qualitative and quantitative research suggest that sport-related identities play a significant role in determining its participants' behaviours (Clayton & Harris, 2008; Miller, 2009). This thesis, therefore, proposes that the components of the social identity perspective can provide a more theoretically informed understanding of alcohol behaviours that is currently lacking in the sport-alcohol literature (Green et al., 2014).

2.3 Sports and spirits: A social identity approach to investigate sportspeople's drinking

"WORLD CUP 2010: ENGLAND SPIRIT RETURNS WITH A BEER, REVEALS FABIO CAPELLO"
The Guardian headline (23 June, 2010)

To date, much of the research has been concerned with examining the negative consequences of the sport-alcohol relationship (Leichliter et al., 1998; Martens, Cox, & Beck, 2003; Partington et al., 2012). However, some evidence suggests those involved with sports have a higher satisfaction with life (Paupério, Corte-Real, Dias, & Fonseca, 2012), and that strong identification with the athlete role can have positive effects with regards to sports achievements (Lamont-Mills & Christensen, 2006), self-confidence (Ryska, 2002) and social connectedness (Chen, Snyder, & Maner, 2010). Furthermore, sport participants continuously reported positive drinking expectancies, despite recounting greater experiences of negative alcohol-related consequences (Zamboanga, 2006). Indeed, self-reported happiness was significantly predictive of alcohol use among student sportspeople – a relationship fully mediated by the role of drinking for team cohesion (Zhou et al., 2014). Therefore, despite reporting rates of alcohol use that are hazardous to health, it may be posited that sportspeople may be happier, in part, due to its function in creating a cohesive unit.

These psychological aspects of social cohesion and belonging apparent in the sports context lend further support to the idea that positive social and psychological outcomes can be garnered from its participation, and from identifying with a sports group (Jetten et al., 2012; Zhou et al., 2014; Wann, 2006). For example, in a US study with university student-athletes, athletic identity mediated the relationship between team sports participation and lower rates of depression (Miller & Hoffman, 2009). Furthermore, the connectedness among teammates is suggested to promote social support, which may act as a protective factor against alcohol-related harms (Grossbard, Hummer, LaBrie,

Pederson, & Neighbors, 2009b). Interestingly, Grossbard and colleagues additionally found that a stronger athletic identity protected against negative consequences of alcohol use among male sports participants (Grossbard et al., 2009a). Moreover, although student athletes reported significantly greater frequency of heavy episodic drinking than their non-athletic peers, both groups report a similar number of alcohol-related problems (Yusko, Buckman, White, & Pandina, 2008). Such findings suggest a potentially protective impact of sport group membership and athlete identity on alcohol outcomes (Grossbard et al., 2009a; Zhou & Heim, 2014). Therefore, while there is a preponderance of research examining the adverse consequences of sport-related drinking, it would appear plausible to explore its potential association with psychosocial wellbeing and identity (Barber, Eccles, & Stone, 2001). As such, findings indicate there may be positive aspects of sports participation and alcohol-related experiences that have been overlooked to date.

With this is mind, the first two empirical chapter seeks to question how concepts of identity and wellbeing are associated with drinking among sport participants:

Q1: What is the relationship between identity, wellbeing and alcohol in sport?

Further to this, in order to extend our knowledge about the directional associations between sport, alcohol and wellbeing, the thesis seeks to add longitudinal interpretations to build upon the preponderance of cross-sectional data (e.g., Grossbard et al., 2009a; Leichliter et al., 1998; Partington et al., 2012) with the question:

Q2: What are the directional relationships between sport identities, wellbeing and alcohol-related measures?

A recent systematic literature review featured diminutive qualitative investigations into the sport-alcohol relationship (Zhou & Heim, 2014). Relevant ethnographic studies have highlighted how drinking practices enabled the construction of a sport group identity (Clayton & Harris, 2008; Palmer & Thompson, 2007) and its adoptions linked to group management (Fuchs & Le Hénaff, 2014). Moreover, the application of a social identity approach to the issue addressed by the thesis begets the need for this *a priori* theory to emerge from descriptive narratives of respondents' own experiences. With this in mind, the thesis adopts a constructivist approach (Lincoln & Guba, 1985) to address the question:

Q3: What are the social and psychological experiences of sport-associated drinking?

Finally, a ubiquitous idea is that social features inherently underpin alcohol consumption, however, remarkably little has been done to investigate the interaction between alcohol intoxication and group processes (see Frings, Hopthrow, Abrams, Hulbert, & Gutierrez, 2008; Hopthrow, Abrams, Frings, & Hulbert, 2007). Therefore, the final question posed by the thesis seeks to examine the psychopharmacological effects of drinking and athletic status with the question:

Q4: How does alcohol intoxication interact with social identity processes and athletic status?

In conclusion, the considerations outlined in this chapter argue for a more identity-focused examination of alcohol behaviours that may have particularly utility for investigating the sport-alcohol link. The various approaches and corresponding literature outlined above point to the important role of social context and group identification in shaping alcohol behaviours. When considering this paradoxical link between sports participation and excessive

drinking, it is apparent the social, cultural and psychological features of sport group membership should be more closely scrutinised in order to afford a better understanding of sport-related drinking. As such, the social identity approach offers a fresh perspective in terms of the importance of belonging and identity contributing to sportspeople's health behaviours and wellbeing. An important implication of this applied framework is that it offers a coherent and explanatory model to how social identity processes come to the fore and are utilised (either overtly or implicitly) to harness alcohol behaviours and wellbeing in this context. Moreover, an applied social identity approach to examining sportspeople's drinking is timely, and supported by the ever-expanding body of social identity literature.

3 Mixing Methods: Methodological Considerations

The empirical studies presented in this thesis draw upon a number of research designs to explore systematically a social identity approach to sportspeople's drinking. This chapter seeks to proffer a brief outline of the background and justification as to why the thesis employed a mixed methods design in order to do so. While avoiding going into detail about the 'paradigm wars' (Gage, 1989), it presents the philosophical viewpoint of the research (and thus the researcher), and the necessity for a theoretical framework for applied research. Following this, the chapter concludes by presenting the deductive reasoning posed by this thesis in order to qualify its research agenda and, thus, its methods.

3.1 Research as 'erotetic'

The consideration of research design and methods is evident in all research seeking to understand the phenomena of human behaviour. The nature of research itself has been described as *erotetic,* pertaining to answering a set of questions in an inductive fashion (McFee, 2009b). Thus, the intent of research is to generate knowledge and, therefore, it pays close attention to the questions asked (Punch, 2013). Arguably, then, classifications of research into its distinctive quantitative versus qualitative camps may concern itself with the epistemological origins of research, however, does not address a key principle of research itself: *providing answers to the questions posed* (McFee, 2009b). With this in mind, it is argued that different questions may require different methods to answer them (McFee, 2009a; Punch, 2013).

Within the arena of research design, there have been two dominant approaches: (a) the interpretations of empirical evidence from quantitative methods, and (b) the perspectives of context and its meanings from qualitative

methods (Creswell, 2013). The enduring issue between the various methodologies falls primarily around the beliefs about the world that govern each approach. Quantitative approaches are traditionally associated with a positive belief that sees knowledge as an independent reality that is 'knowable'. As such, the goal is to utilise objective measures to discover universal laws about human behaviour (Smith, 1998). Conversely, qualitative approaches are associated with constructivist beliefs that suggest knowledge is mediated through the individuals' experience of the world, and thus can differ between people and cultures (Proctor, 1998). As such, the theme of past discussions centre upon these two 'tales' – the scientific (positivist) and the realist (constructivist) perspective on knowledge and reality – whether such diverse epistemological viewpoints can or should be used interchangeably (Biddle, Markland, Gilbourne, Chatzisarantis & Sparkes, 2001; Hammersley, 1996).

However, when looking a little deeper at the merits and weaknesses of the various methodologies available, the divisions between the practices of methods are not so distinct. Contemporary qualitative approaches can have different theoretical assumptions and procedures of interpretation akin to the divisions between scientific and realist fundamentals. For example, Reicher (2000) highlights the distinction between 'experiential' and 'discursive' qualitative methods. The former seeks to interpret perspectives and experiences in order to understand actions (Lincoln & Guba, 1985), whilst the latter treats language as a form of social action that is used to construct our social world (Edwards & Potter, 1992). In this particular example, the fundamental concerns lie not between methodological camps (i.e., quantitative versus qualitative). Rather, it focuses on the theoretical and philosophical differences that can be found both within and between methodologies (Reicher, 2000). The purists of each camp may argue that the assumptions associated with each paradigm are incompatible (Smith, 1983), however, others contend that certain research questions lend themselves more to a certain approach (Sieber. 1973).

The developments in cognitive, social and behavioural research have called for the integration of the positivist principles of instrumental and empirical evidence of quantitative methods, and the observing, describing and interpretive processes involved with the constructivist principles of qualitative research (Haverkamp, Morrow, & Ponterotto, 2005). First formalised by Campbell and Fiske (1959), a mixed methods design introduced a paradigm that adopted more than one method as a validation process to explain the variance of results in relation to an underlying research question. Classic sources (e.g., Denzin, 1970; Jick, 1979) refer to the process of triangulation, whereby investigations designed multiple methods to examine the same phenomenon in order to strengthen the validity of the results. The use of a broad range of methodologies offset the respective weaknesses of each method through the utility of another, and the results can, therefore, be corroborated in order to assess a phenomenon (Greene & McClintock, 1985). However, the conception of triangulation, both in its terminology and its design, implies the utility of multiple methods as a validation of the answer to *one* question from a multiple of perspectives, and that the data generated (and thus the interpretations) are not simply artefacts of one specific design method (Cohen & Manion, 1980; Cook & Reichardt, 1979).

In contrast to triangulation, however, the case for the mixed methods approach adopted by this thesis relies upon the *erotetic character of research*. In other words, it sets out to answer a number of interconnected questions to support a claim to knowledge. To engage in research is to immerse oneself in exploring different ways of answering the overarching inquiry, and which therefore may require different ways of asking the question (McFee, 2009b). Thus, it is argued that the main concern when addressing methodological considerations is not the epistemological origins (i.e., positive vs. constructive) of each design, but whether the design is fit to answer the questions posed (Reicher, 2000). Moreover, it is appropriate to determine whether these multiple questions can be combined, and, if so, what are the benefits of such combinations (McFee,

2009a). In the conception of the current thesis, there are a number of research questions asked in order to explore systematically the relationship between sports participation and hazardous alcohol use. In its entirety, the thesis seeks to answer the question:

> HOW CAN A SOCIAL IDENTITY APPROACH FRAME SPORTSPEOPLE'S ALCOHOL BEHAVIOURS, AND WHAT IS ITS UTILITY?

However, within this superordinate research question, a number of sub-questions identified in Chapter 2 seek to explicate the interwoven threads that form this theoretical and practical inquiry. In this way, the methods used to find answers to these various research questions must be appropriate in order to conceptualise accurately an answer this superordinate question. Importantly, although there are a number of differences between research paradigms, an understated commonality shared between the various approaches is the need for empirical observations to answer research questions (Johnson & Onwuegbuzie, 2004; Sechrest & Sidani, 1995). Additionally, the theoretical examination guiding the thesis suggests that difference research methods may act as an interactive continuum of assumptions that allows the researcher to initiate, test, and build theoretical concepts to the phenomenon in question (Newman & Benz, 1998). As such, the nature of the research is both *exploratory* and *confirmatory* (Onwuegbzie & Teddlie, 2003), insofar as it utilises descriptive statistics and opening-ended questioning to explore associations between sport and health behaviours, and adopts theory-driven statistical modelling and thematic analysis to confirm its hypotheses. From this perspective, the shared assumptions and efficacy of both quantitative and qualitative methods allow for a systematic examination of health-related behaviours in sport.

With this in mind, the erotetic nature of research, i.e., the question and answer formulation of knowledge, suggests that the distinction between quantitative and qualitative need not be a focal division. Instead, embracing a

mixture of methods allows researchers to answer any form of question, and contribute to the construction of knowledge. Moreover, the theoretical application underpinning this thesis presents the need to employ appropriate methodologies to address its theoretical concepts and assertions. As such, it embraces the need to avoid 'methodolatry' (Chamberlain, 2000; Reicher, 2000), which prioritises analytic techniques over the actual questions being asked by the research.

3.2 Practising pragmatism pragmatically

The content above highlights the significance of the erotetic nature of research and introduces the superordinate research question that formulates the body of research for this thesis. However, one should not avoid the philosophical platform that is involved in the proposal, planning and conduct of research. Creswell (2013) reiterates this by suggesting researchers reflect on the *philosophical worldview* assumptions brought to the study that espouse the research design and procedures necessary to translate an approach or idea into practice. This worldview is described as a "basic set of ideas that guide action" (Guba, 1990, p. 17), also identified as an "orientation about the world and the nature of the research that the researcher brings to the study" (Creswell, 2013, p. 6). By identifying the larger philosophical ideas, or worldviews, held by the researcher, it therefore reflects the broad paradigms that the study questions, and that its subsequent design, espouse. In other words, introducing the epistemological stance of the individual conducting the research provides an understanding for why and how strategies of enquiry are chosen when designing research. Moreover, it offers a description of the nature of knowledge sought, and the purpose of its inquiry (Creswell, 2013).

The principle philosophical positions have been widely discussed in the literature (for overviews, see Creswell, 2013; Guba, 1990; Sale, Lohfeld, & Brazil, 2002). After considering these viewpoints, the ontological (reality),

epistemological (knowledge), and axiological (value), the worldview of the present researcher decidedly aligns with the pragmatist camp. Pragmatism is a philosophy of knowledge construction that emphasises practical solutions to applied research questions, and the consequences of inquiry (Dewey, 1931; James, 1907; Peirce, 1878). It argues that we should opt for methods and theories that are appropriate within the specific context examined, and focus on their practical and social consequences (Rossman & Wilson, 1985). In essence, therefore, it does not commit to one method or paradigm. Instead, it holds a 'real-world' orientation to its approach to research, and the purpose and intended consequences of the answers to the questions explored (Cherryholmes, 1992; Creswell, 2013; Morgan, 2007). In this way, pragmatism is cited as the philosophical partner of mixed methods research (Johnson, Onwuegbuzie, & Turner, 2007).

As a 'third methodological movement' (Johnson et al., 2007; Teddlie & Tashakkori, 2003), mixed methods take the stance of utilising appropriate forms of data collection in order to answer problem-centred research questions (Creswell & Clark, 2007). This returns us to the erotetic nature of research, i.e., research should seek to provide logical answers to the questions posed. If the question posed is problem-centred by nature, as is the focus of the superordinate question that constructs this thesis, then it follows that an appropriate philosophical viewpoint is one of pragmatism, and its research methodology one of mixed methods.

3.3 Theoretical hooks and methodological maps

Research within psychology and many other disciplines seek theoretical guidance or endeavour to identify theoretical models, in order to explore the phenomena of human behaviour. These theoretical frameworks are suggested as the "hooks" on which research projects can be hung (Sandelowski, 1999). In this way, theoretical frameworks inform the research direction, whether the intent is

to validate, verify, develop, adjust, or apply its theoretical implications. They offer testable explanations to how and why a phenomenon occurs, facilitate the bringing together of observations from separate investigations, and provide predictions for future proposals (Polit & Beck, 2004). As such, theoretical frameworks are suggested to be imperative to mixed methods research as they provide the "map" to help researchers return to their superordinate research question after exploring various questions through various available methodological avenues (Evans, Coon, & Ume, 2011).

Moreover, the role of theory in determining research provides a frame for how we approach the phenomenon and the way to look at it (Neuman, 1997). In a deductive approach, researchers use theory to guide the design of a study and the interpretations of the results. Existing theories can provide a 'lens' in order to explain aspects of human social behaviour through linking concrete data to abstract concepts (Miles & Huberman. 1994). As such, its role not only enables an explanation for behaviour, it can be used to make predictions about future behaviours in order to solve social or practical problems (Lens, 1987). In this fashion, the application of social identity theorising to 'real-world' issues have enabled theory-led research to applied practice (e.g., Best et al., 2014; Reicher, 1996). Moreover, a practical domain and situation where theoretical principles can be applied and tested allow for theory to be understood and generalised to context (Haslam, 2014).

The theoretical overview of the thesis (Chapter 2) outlined the emergence of the social identity perspective as an applied social psychological theoretical model that has utility in the promotion of health and wellbeing (Haslam et al., 2009; Zhou & Heim, 2014). Its application has been explored as an explanatory model of health behaviours, such as smoking (Schofield et al., 2003), alcohol use (Livingstone & McCafferty, 2015), physical recovery (Haslam et al., 2008), and as a preventative model for addictive behaviours (Buckingham et al., 2013; Frings &

Albery, 2015). In a similar fashion, the current programme of research seeks to explore the social identity approach as the theoretical model to describe and understand the link between sports participation and alcohol use. Moreover, its theoretical framework provides the 'hooks' on which the separate study methodologies tailor to and the 'map' which coordinates the separate research questions to target the answer to the superordinate thesis question.

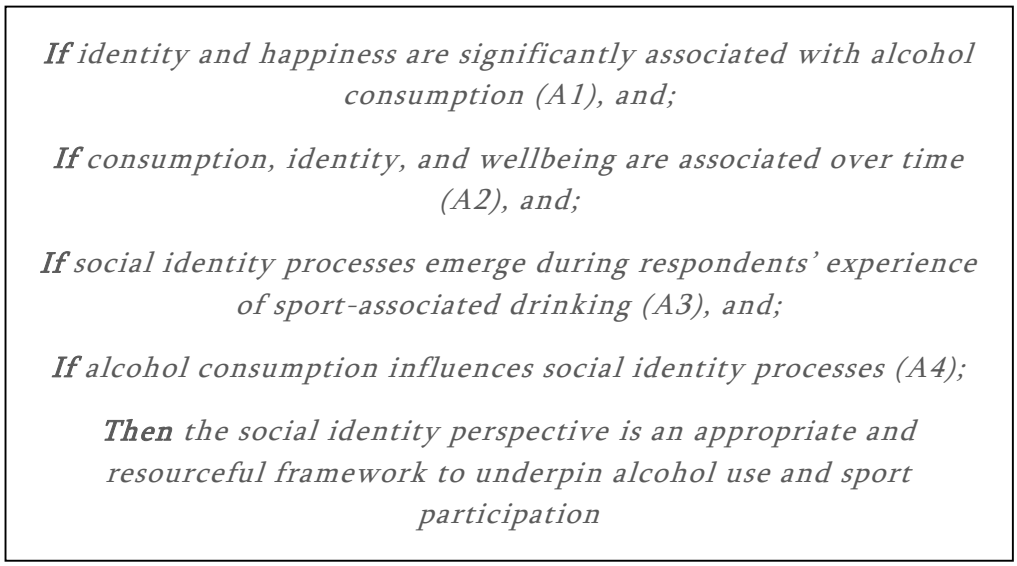
3.4 The method in the madness

The debate around mixing methodologies has progressed over the last few decades with psychological and health research, in particular, seeing an increase in mixed methods research (Clark, 2010; Ivankova & Kawamura, 2010). In an editorial in the journal, *Addiction*, McKeganey (1995) outlines the need for a multifaceted approach to the study of substance use in order to address the multi-factorial interactions between environmental, social and psychological influences on using behaviour. By engaging with research that utilises mixed methods as complementary paradigms, researchers can supplement, validate, and explore complex phenomena that are not restricted to one methodological system (Neale, Allen, & Coombes, 2005; Pope & Mays, 1995). As an example, this current chapter outlined how both quantitative and qualitative methods of this thesis provide a complementary and additive route to a contribution of knowledge (see Figure 3.1).

In summary, both quantitative and qualitative methods systematically examine the thesis question: HOW CAN A SOCIAL IDENTITY APPROACH FRAME SPORTSPEOPLE'S ALCOHOL BEHAVIOURS, AND WHAT IS ITS UTILITY? The investigation was guided by the theoretical framework of the social identity perspective, and sought to identify themes aligning to social identity concepts within the narratives of 'lived experiences' of sport-associated drinking (constructivist), whilst testing its explanatory (statistical variance), directional (longitudinal change) and mediation (strength) associations to respondents' drinking

behaviours. The pragmatic intent for the integration of current methods is to assess the applied utility of the social identity approach to aid policy and practice concerning drinking-reducing interventions and alcohol-related harm minimisation strategies. The eighth and final chapter, therefore, summarises the thesis findings and discusses their theoretical and practical implications.

Figure 3.1. Deductive inferences drawn from the empirical findings in order to answer the thesis question.



4 Alcohol Consumption, Athlete Identity and Happiness in Sport*

The convergence of literature presented in Chapters 1 and 2 signalled the important role of identity and the psychological impact of a sports group membership on its participants' alcohol-related behaviours. An immersion in sport, by actively participating in and being a member of a sports group, is suggested to facilitate the construction of a sport-specific identity (Miller, 2009). Previous research has coined this sporting identity as an 'athlete identity', referring to the degree to which sport participants identify with the athletic role (Brewer & Cornelius, 2001; Brewer, Van Raalte, & Linder, 1993). In order to capture this psychological position, Brewer et al. (1993) designed the Athlete Identity Measure (AIM), a psychometric scale comprised of constructs theorised to describe this role. Specifically, it measures the strength and exclusivity of an individual's identification as an athlete (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993), the importance of the athletic role for individual self-concept (Horton & Mack, 2000), and the impact of the athletic role on negative affectivity (Hale, James, & Stambulova, 1999).

To date, less than a handful of studies have examined athletic identity in relation to alcohol consumption, and findings are fragmented. On the one hand, a study performed with transitioning sport participants from college to university found that athlete identity had an indirect effect on personal drinking behaviours through moderating the adoption of athlete-specific drinking norms in an

* This chapter is taken from Zhou, J., Heim, D., & O'Brien, K. (2015). Alcohol consumption, athletic identity, and happiness among student sportspeople as a function of sport-type. *Alcohol and Alcoholism, 50*(5), 617-623.

augmented manner (Grossbard et al., 2009a). On the other hand, further research has found no evidence to link directly athletic identity with alcohol consumption (Partington et al., 2010; Zhou et al., 2014). Additionally, longitudinal work by Barber et al. (2001) found that a sport identity garnered through participating in team sports predicted future alcohol use, but that these individuals also held highest levels of self-esteem and displayed the lowest scores for worry and social isolation. As such, whilst athletic identity appears to have a positive impact on a range of personal and social development (Ryska, 2002), and social connectedness (Chen et al., 2010), its affiliation may also determine one's response to, and expression, of identity-related health behaviour (Brewer et al., 1993; Lisha & Sussman, 2010). The impact of identifying with the athletic role on university students' health, therefore, warrants exploration, especially as alcohol researchers seek to reduce alcohol-related harms and promote psychosocial wellbeing.

Additionally, some evidence suggests that sportspeople participating in team sports (e.g., rugby, cricket, football/soccer) report significantly higher rates of alcohol consumption and binge drinking, than those engaged in non-team sports (Black et al., 1999; Ford, 2007b; Lorente, Souville, Griffet, & Grélot, 2004; Partington et al., 2012). However, in a US study conducted with college athletes, Martens and colleagues (2006d) found that, although sport-type differences emerged on alcohol consumption measures, there were no differences in reports of negative alcohol-related experiences. One novel view of this finding could be that perhaps there are protective factors intertwined within sport-related drinking buffering against elevated alcohol activity. As mentioned previously, positive variables such as wellbeing and identity formation have been associated with sports participation (Brewer et al., 1993; Grossbard et al., 2009b; Zhou et al., 2014). Therefore, seeking to examine explicitly how such factors relate to alcohol consumption, this chapter presents the first empirical study of the thesis.

4.1.1 The current study

Studies have identified student sportspeople as a high-risk subgroup for excessive alcohol consumption by largely US-based empirical research (Zhou & Heim, 2014). There is a paucity of studies on sport-related drinking within the UK, however, the diminutive research conducted highlights parallel rates of hazardous drinking in this population (O'Brien et al., 2014; Partington et al., 2012; Sparkes, Partington, & Brown, 2007). The present study seeks to add to this emerging literature by utilising an existing dataset containing a large and geographically varied sample of UK sports participants. Employing secondary data analysis, its aim was to examine the relationship between alcohol consumption, athlete identity, and happiness in this cohort. Additionally, it sought to determine if differences existed among these variables as a function of types of sport played, i.e., team-based versus individual sporting activity.

Secondary data analysis

Secondary data analysis (SDA) is acknowledged as an important, but underused, methodological resource in psychological research (Andersen, Prause, & Silver, 2011). It refers to a research process that utilises existing data to explore research questions not originally formulated during the primary data collection (Kiecolt & Nathan, 1985). One of its main strengths is the access to large sample datasets, which may not have been amenable or cost-effective for certain programmes of research (e.g., doctoral study). Recent calls for SDA proposals by funding bodies (e.g., Secondary Data Analysis Initiative, ESRC) reflect the need for creative projects to employ pre-existing data resources as an opportunity for research. As such, the use of existing datasets is recommended in cases where a new perceptive or conceptual focus can be applied to the original study, and when primary research intentions align with secondary study aims (Trzesniewski, Donnellan, & Lucas, 2011).

In this instance, the primary study[3] gathered data on drinking behaviours of sportspeople within the UK in order to replicate studies investigating alcohol sponsorship and alcohol misuse in sport performed in New Zealand and Australia (O'Brien & Kypri, 2008; O'Brien et al., 2011). Original data collection amassed information on variables such as socioeconomic status (e.g., income), funding sources (alcohol and non-alcohol industry sponsors), sport-specific factors (athletic identification), individual factors (happiness, drinking motives), and alcohol use (see O'Brien et al., 2014 for details). In light of the present study aims, the original dataset presented a representative sample of the relevant target population (student sportspeople) and composite measures specifically applicable to the thesis interest. Moreover, the availability of a large sample presented an opportunity to interpret research findings with confidence in its statistical power and contribute to the sport-alcohol literature with a representative UK sample.

4.2 Method

4.2.1 Participants and procedure

A purposive sample of UK university sportspeople (response rate 83%) from ten universities participated. Data collection took place between September 2010 and February 2012, encompassing a range of in-season winter and summer sports activities (e.g., football, cricket, rugby, tennis, athletics, swimming, golf, etc.). In order to gather England-wide data, recruitment was inclusive of the North West, Midlands, London, and Southern England regions. The process identified university sport-related venues (e.g., sports grounds, stadiums, clubrooms, formal university sports programmes) and their sports clubs. Recruitment of participants took place during group training sessions at these venues and respondents were offered a nominal incentive of £2 for participation. They were informed that their data would remain anonymous, and that provision of names or identifying information was not required. The questionnaire took

[3] The current researcher worked as a Research Assistant on this Alcohol Research UK funded project (grant number R2009/02). She was involved with the collection and collation of data for the study.

approximately 15 minutes to complete, during which time the researchers remained present to answer any queries.

The original dataset contained 2113 participants. For the purposes of the present analysis, the dataset was transposed and screened. First, sport activity was coded to differentiate team-based and individual sports. The criterion for a team sport involves ≥3 players on each side competing simultaneously, while an individual sport involves participants competing solo (where there may be options for two players competing on one side, e.g. tennis doubles, these were still categorised as individual sports). Participants who did not declare their sports activity were removed (n = 22). Second, missing data were assessed and cases with >50% nonresponses on the variables of interest removed (n = 306). Third, outliers were assessed via box plots to indicate anomalies. Erroneous mistakes were corrected, or if the mistake could not be confidently identified the score was replaced following Expectation Maximisation to compute missing random values (Tabachnick & Fidell, 2001).

Complete data on the variables of interest were obtained from 1785 sportspeople (male = 1048, 58.7%), and age ranged 17 to 37 years (mean age 20.07; *SD* = 2.68). Within the sample, 1391 respondents (77.9%) were involved in team sports (e.g., football, basketball), and 394 (22.1%;) in individual sports (e.g., tennis, swimming).

4.2.2 Measures

Participants completed a questionnaire[4] containing demographic questions (e.g., age, gender, sport played), the Alcohol Use Disorders Identification Test

[4] The original questionnaire contained an array of sections that collected a number of different psychological, social, alcohol-related, and sport-specific constructs. For the purposes of this chapter, only the main variables of interest to the present analyses are detailed.

(AUDIT; Saunders et al., 1993), and measures of athlete identity and subjective happiness.

Alcohol consumption. Alcohol use was collected via the AUDIT, a validated and reliable 10-item questionnaire developed by the World Health Organisation (WHO) to identify persons whose alcohol consumption has become hazardous or harmful. An AUDIT-total score of eight and over has been validated as a reliable indicator of hazardous alcohol-related behaviour (Conigrave, Hall, & Saunders, 1995). The AUDIT collates respondents' alcohol behaviours using a 12 month time range ("your alcohol use during the past year") and has three subscales that assess: alcohol consumption (AUDIT-C; three items assessing frequency and quantity of alcohol consumption), symptoms of alcohol dependence (AUDIT-D; three items assessing the development of problematic repeated use), and harmful consequences of drinking (AUDIT-H; four items assessing the frequency of negative events). The AUDIT-C subscale is considered a sensitive indicator of alcohol consumption (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998), and it is well established as a psychometric test for use with student samples (Kokotailo et al., 2004). In the present study, only AUDIT-C was included in the analyses (α = .83), as the other subscales captured aspects of alcohol-related harms, rather than consumption.

Subjective happiness. Participants' general happiness was assessed using the four-item Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). The SHS is an assessment of global subjective happiness and selected due to its brevity and high internal consistency demonstrated across samples (e.g. Swami et al., 2009). Participants used a seven-point Likert scale to indicate their level of happiness (e.g., "Compared to most of my peers, I consider myself"; 1=less happy, to 7=more happy). A test of scale reliability indicated that the final item (a reversed question: "Some people are generally *not* very happy") poorly related to the first three and may have been misinterpreted by participants, thus

compromising the internal consistency of the scale (α = .35). However, removal of this item enhanced the internal reliability of the scale (α = .84). Accordingly, the summation of the first three items comprised the total measure score, with higher scores indicating greater subjective happiness.

Athletic identification. The Athletic Identity Measure (AIM) assessed the strength of participants' identification as a sportsperson, and their investment in sport generally (Brewer et al., 1993). This 10-item scale asks participants to rate the extent to which they agree (1=strongly disagree to 7=strongly agree) with statements that encompass social (e.g., "Most of my friends are sportspeople"), cognitive (e.g., "I consider myself a sportsperson"), and affective elements of their sport identity (e.g., "Sport is the most important part of my life"). AIM scores were averaged across the 10 items, with higher scores reflecting a stronger identification with the athlete role (α = .89).

4.3 Results

4.3.1 Preliminary analyses

SPSS was utilised for all data analyses. Descriptive analyses explored the associations between the variables before developing the regression model. Overall, rates of hazardous drinking were elevated in this sample (AUDIT-total score 8+; Conigrave et al., 1995), with 86.8% of the participants categorised as hazardous drinkers. Hazardous alcohol use was significantly higher among team sport players (89.8%) than in individual sports players (76.1%, $\chi^2(1) = 47.53$, $p < .001$, $\Phi = .17$).

Bivariate correlation analyses explored associations among the study variables within the overall cohort. Athlete identity was not significantly associated with AUDIT-C scores ($r = -.02$, $p = .474$). Similarly, small relationships between happiness and AUDIT-C failed to reach significance ($r = .05$, $p = .056$). There was a significant positive correlation between happiness and athlete identity ($r = .10$, $p < .001$). Finally, there was a significant negative relationship

between age and alcohol consumption (r = -.15, p < .001), whereby as age increased alcohol consumption decreased. Two one-way ANOVAs tested for gender and sport-type differences. This revealed significant differences between gender and sport-type measures, with male and team sports players scoring higher across all measures (see Table 4.1).

One-way ANOVAs indicated that team sports players had significantly higher scores than individual sports players across all variables, therefore, this was explored further by separating the sample by sport-type and analysing each group separately. Correlation analysis indicated slightly different relationships

Table 4.1. Means and standard deviations (with p values and effect sizes denoted) of self-reported alcohol consumption (AUDIT-C), happiness and athlete identity (AIM) split across gender and sport-type.

	Gender		Sport-type	
	Male	Female	Team	Individual
Variable	Mean (SD)		Mean (SD)	
AUDIT-C (α = .83)	8.18*, [a] (2.81)	7.78 (2.61)	8.28***, [b] (2.61)	7.05 (2.95)
Happiness (α = .84)	4.63**, [a] (.91)	4.48 (.90)	4.60**, [a] (.90)	4.46 (.92)
AIM (α = .89)	4.64***, [c] (1.10)	4.11 (1.24)	4.48***, [a] (1.16)	4.20 (1.26)

* p< .05; ** p < .01; *** p < .001, denotes significant differences between means.
[a] $\eta\rho^2$ = .01; [b] $\eta\rho^2$ = .04; [c] $\eta\rho^2$ = .05

Table 4.2. Correlations between self-reported alcohol consumption (AUDIT-C), subjective happiness and athlete identity (AIM). Coefficients for overall cohort displayed in brackets. Sport-type coefficients are displayed above and below the diagonal: Values for team sports are displayed above.

	AUDIT-C	Happiness	AIM
AUDIT-C	-	.04 (.05)	.01 (-.02)
Happiness	.01	-	.12** (.10***)
AIM	-.18*	.05	-

* p< .05 (2-tailed); ** p< .01 (2-tailed); *** p< .001 (2-tailed)

when the sample split into team and individual sports (see Table 4.2). For individual sports players, there was a significant *negative* correlation between alcohol consumption and athlete identity (r = -.18, p = .001). However, no significant association was found between team sports players' athlete identity and AUDIT-C scores, although the correlation trend showed a weak *positive* correlation. For team sport players, happiness was positively correlated with athlete identity (r = .12, p < .001). However, no significant relationship was found for individual sports players. These divergent correlations indicated an interaction effect between individual and team sport-types on alcohol consumption and subjective happiness.

4.3.2 Multiple regression and interaction effects

In order to assess sport-type differences on alcohol consumption, interaction values were computed. Sport-type was dummy coded (0 = individual sport, 1 = team sport) and continuous variables (athlete identity and happiness) were mean centred to avoid multicollinearity (Aiken & West, 1991) before multiplying for the interaction term. The final step of the regression model included a three-way interaction between sport-type, athlete identity and happiness to determine whether the influence of athlete identity on happiness was different for team and individual sports players when regressed onto alcohol consumption.

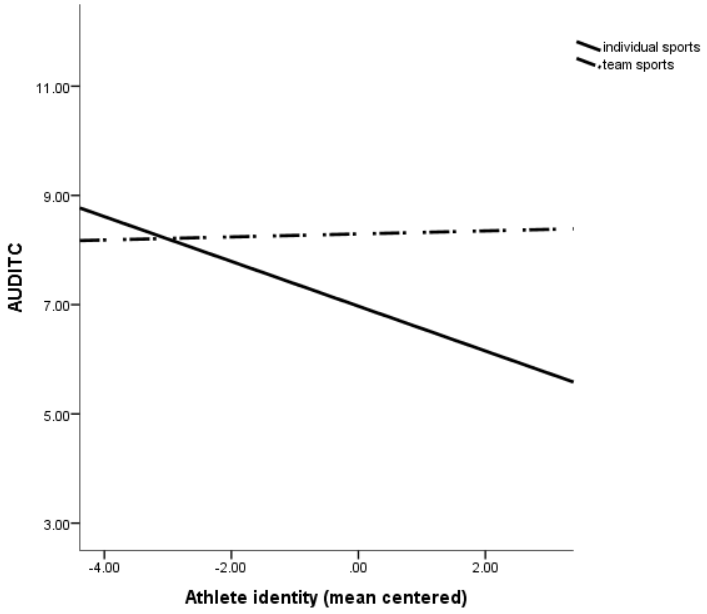
Step 1 added age, gender, and sport-type as covariates into the regression model. Following this, Step 2 added AIM and happiness scores, two-way interaction terms entered at Step 3, and the three-way interaction in the final step. A significant final model emerged for AUDIT-C scores: F(8,1704) = 16.43, p < .001, adjusted R^2 = .07 (see Table 4.3). In the final regression model, athlete identity was a significant predictor of alcohol consumption (β = -.20, p < .001), alongside gender (β = .08, p = .001) and age (β = -.14, p < .001). However, happiness did not predict alcohol consumption (p = .670).

Table 4.3. Regression model (final step) for predictors of AUDIT-C scores.

Variable	B	SE B	β
Gender	.42	.13	.08*
Age	-.15	.02	-.14**
Sport Type	1.24	.16	.19**
Happiness	.06	.15	.02
AIM	-.45	.11	-.20**
AIM x Happiness	-.02	.06	-.01
Sport Type x Happiness	.05	.17	.01
Sport Type x AIM	.44	.13	.16**
Sport Type x Happiness x AIM	.00	.07	.00

AUDIT-C, Alcohol Disorders Identification Test Alcohol Consumption subscale; B, unstandardised coefficient; SE B, unstandardised coefficient standard error; β, standardised coefficient.
* $p < .01$; ** $p < .001$

Figure 4.1. Simple regression slopes to plot athlete identity (AIM) and sport-type.



There was also a significant interaction between sport-type and AIM scores on AUDIT-C, $t(1713) = 3.50$, $p < .001$ (R^2 change = .01, $p = .002$). Further simple slopes tests for AUDIT-C revealed higher athlete identity significantly reduced alcohol consumption for individual sports players ($t = 3.79$, $p < .001$). However, for sports team players athlete identity had no significant effect ($t =$

.45, $p = .646$). There was no significant interaction between happiness as a function of sport-type ($p = .770$), and there was no three-way interaction involving athlete identity ($p = .998$).

4.4 Discussion

The present study sought to investigate the relationship between athletic identity, happiness, and sportspeople's drinking as a function of sport-type (team-based vs. individual sports). A large proportion (86.8%) of the sample indicated hazardous alcohol use consistent with research from other countries (e.g. (O'Brien, Blackie, & Hunter, 2005; Zamboanga et al., 2006). Overall, there were significant sport-type differences across all the variables of interest. Team sports players reported significantly greater rates of alcohol consumption and scored higher than individual sports players on measures of athlete identity and happiness. Interaction analyses indicated that athlete identity moderated alcohol consumption between sport-type. Greater athletic identification was associated with lower reports of alcohol consumption for individual sports players. Conversely, however, athlete identity did not predict alcohol consumption for team sports players.

As such, the current findings suggest that there may be differences in drinking practices associated with certain sport-types. Construction of identity has been associated with the adoption of normative styles of behaviour congruent with that identity, in order to validate and enforce one's role and social status (Burke, 1980; Miller, 2009). Considering this contention, the present study may, therefore, indicate that identification with their athletic role may promote or dissuade alcohol consumption in-line with their sport activity's norms. Within individual sports, elements such as competition and individual achievement may be more pronounced, with alcohol consumption possibly being perceived as detrimental to sporting performance and, therefore, avoided (Wichstrøm & Wichstrøm, 2009). In contrast, cultural and normative drinking traditions in

team sports often centre on consuming alcohol within groups, and drinking is seen to promote a sense of camaraderie and cohesion (Lawson & Evans, 1992). Therefore, there may be greater opportunities to consume alcohol in team settings and, moreover, drinking may be sanctioned to enhance this team cohesion and connectedness between team members (Grossbard et al., 2009b; Stainback, 1997; Zhou et al., 2014). From this perspective, the results of the current study suggest that an athletic identity may carry norms and qualities related to alcohol that, in turn, influences its consumption.

In terms of contribution to knowledge, the present study is one of the first that examines positive psychological correlates of sport-associated alcohol use and how these could be a) shaping sports participants' drinking, and b) related to broader wellbeing outcomes, utilising a large and geographically varied UK sample. The current findings suggest that a sports identity can play a pivotal role in determining alcohol consumption and that it may play a formative role in providing psychosocial wellbeing for its participants

In support for the latter interpretation, past research has linked perceived belonging to a sports team to positive implications for one's psychosocial health (Barber et al., 2001; Chen et al., 2010; Wann, 2006). Similarly, within the current cohort, team sports players rated themselves happier than individual sports player, and there was a significant positive relationship between happiness and athlete identity for team sports players (although no equivalent association for individual sports players). What these findings indicate is that team sports players were the happier subgroup in the current sample, despite their associations with greater levels of hazardous alcohol use. The literature suggests that the social interactions and integrations within sport, and more specifically team sports, provide a number of psychosocial benefits (Berkman et al., 2000; Zullig & White, 2011). Furthermore, social identity literature discusses the significance of social connectedness as a resource for health and wellbeing, in terms of its provision of social support, and the buffering effect of the group belonging on negative

experiences (e.g., Haslam, Jetten, & Waghorn, 2009). Interpretations of the current study findings may draw upon these notions to explain how athletic identification may be associated with happiness in the present study, and may be a protective factor against negative alcohol-related consequences observed in prior research (e.g., Grossbard et al., 2009a). As such, it brings to light how positive outcomes of sport group identification may be used to promote wellbeing in this subgroup, and potentially help minimise alcohol-related harms.

At this point, it is important to outline the limited scope of the AIM as a sole composite measure of sport-related identity. As defined by Brewer et al. (1993), the AIM items refer to a sportsperson's personal identity towards their athletic status (e.g., "I consider myself a sportsperson"). However, one's level of connectedness on a group-level (e.g., "I feel strong ties with my sports group"; Cameron, 2004) is arguably an important dimension to sports participation omitted from the AIM. To extricate what identification processes underpin sport group membership to psychosocial outcomes and alcohol use, the next step would be to investigate these varying levels of sport identification and their potential for shaping wellbeing and limiting alcohol-related harm (Grossbard et al., 2009b). Intimations from social identity literature suggest that the social connectedness provided by group membership can be a source of psychosocial health promotion (Jetten et al., 2014). Therefore, the direction of the following study (presented in Chapter 5) is to translate such research to the current context and discern how both an athletic role identity and a social group identity may affect alcohol use among sportspeople.

In addition, there may be some contention with regard to the environment in which identity measures are collected, and the potential confounding context effects that can arise from collecting data in the presence of fellow team members. Researchers have begun to discuss the categorisation of team and individual sports, and the impact of these typologies for sport-related behaviour research (Evans, Eys, & Bruner, 2012). Such distinctions bring to light

the confounding factor of interdependent individual sports, for example, doubles tennis. This may be even more pertinent when considering the methods in which the data was collected for the original study, whereby the training session of both individual and team sports were just that – a collective and interdependent training session. This aspect may provide an explanation as to why previous literature reveals conflicting findings regarding between-sport differences of alcohol use (e.g., Green, Uryasz, Petr, & Bray, 2001). Evans and colleagues (2012) suggest the extent to which an athlete identifies with being a member of their team, and how this is framed in different contexts and its impact on group interactions and connectedness, as a more useful perspective for social research within the sport. Such assertions add support for the direction and identity-focused research aims of the next three empirical chapters of the thesis.

4.5 Summary

The present study sought to examine the relationship between athlete identity, alcohol consumption, and subjective happiness among a UK sample of student sportspeople. Current analyses revealed the effect of athlete identity on drinking, and that these trends differ significantly as a function of whether one plays a team or an individual sport. These initial findings contribute towards determining how sport-related identity may play an influential role in shaping sportspeople's alcohol consumption. Moreover, as argued in Chapter 2, a sport-related identity may provide meaningful and positive psychosocial outcomes related to sport involvement. In this manner, the study results show that athletic identity was associated positively with happiness (for team sports players). The aim of the next chapter is to continue this line of investigation more fully by examining how distinctive levels of sport-related identities interact with general wellbeing and alcohol consumption, and their directional associations, over time.

5 Alcohol Consumption and Sport Participation: Associations with Identity and Wellbeing*

In an effort to provide a greater understanding of the mechanisms underpinning sport participation and alcohol use, Chapters 1 and 2 developed the question of how group-specific identities can influence health-related behaviours. Findings from the previous chapter underscore the role of athlete identity in shaping alcohol consumption in sport. In order to build on its findings, however, it is argued that a more nuanced examination of sport-related identities is needed to accord for both personal and interdependent features of sport participation (Evans et al., 2012; Miller, 2009). Furthermore, the lack of longitudinal data has meant that past discussions have been confined to cross-sectional interpretations of the antecedents for alcohol use (Grossbard et al., 2009a; Martens et al., 2011). As such, this chapter seeks to advance the current literature, and the previous chapter, by examining longitudinally the relationship between person and social sport identities, wellbeing, and alcohol behaviours. Specifically, it builds upon the contributions outlined in the preceding chapter by exploring more explicitly a theoretical conceptualisation of identities, in order to better elucidate what kinds of sport-specific identity may be associated to alcohol behaviours in this context.

5.1.1 Sport-related identities: Me, myself, and us

To refer briefly back to the metatheoretical origins of self-categorisation theory (introduced in Chapter 2), this asserts that there are multiple abstraction levels of identity in terms of which one can define oneself that are derived at the group-level, and which have distinct implications for self-concept and behaviour

* This chapter is taken from Zhou, J., Heim, D., & Levy, A. (in press). Sport participation and alcohol use: Associations with sport-related identities and wellbeing. *Journal of Studies on Alcohol and Drugs.*

(Turner, 1982; Turner, Oakes, Haslam & McGarty, 1994). From this perspective, on a subordinate level for example, a sportsperson can gain distinction from their athletic ability when compared to other sportspeople. At the same time, sport group membership on an intermediate level provides a sense of self that can be garnered from valued social relations and group belonging.

The present examination, therefore, draws upon these abstraction levels in order to discern how group memberships enables both a *person-based* identity and a *group-based* identity (Brewer, 2001). Reid and Deux (1996) acknowledged this conceptual difference in terms of (person-based) *attributes* and (group-based) *identities*, however, posits that both are developed from a socio-cognitive organisation of group categorisation. This view underlines how our sense of self is derived from the categories that exist within our social environment. During this process of identification, the group characteristics, or *content,* are intrinsically internalised and self-attributed. Further, Brewer & Gardner (1996) qualified that this socially derived identity was a basis for not only serving to share self-defining personal attributions, but also a process that promoted group members to act collectively in accordance with a group image (Brewer, 2001). Thus, to apply this conceptualisation to the current context, the same set of socio-cognitive processes allow the assimilation of a sport-related identity based on the personal *attributes* associated with being a 'sporty person', while providing a sense of group *identity* dependent on group-level characteristics and image that might come from being 'a rugby player'. In this way, individuals can draw upon a number of identities to define their thoughts and behaviours that arise from the antecedents and consequences of a salient social identity (Turner at al., 1987).

This identity distinction on behaviour emerged in Terry and colleague's (1999) examination of the attitude-behaviour link. Here, the authors posed the question as to how personal identity and group-related constructs jointly influence behavioural decisions. Importantly, they found that effects of self

identity remained constant on behaviour, irrespective of group identification level. At a theoretical level this, therefore, underscores the importance of distinguishing between *self* identity and *social* identity constructs, and considering them as dual, but not necessarily converging, identity-based influences (Reid & Deaux, 1996; Terry et al., 1999). More recently, experimental work from Tarrant and Butler (2011) showed that participants expressed reduced intentions to drink after different abstraction levels of identity were primed ("student" versus "British"). As such, researchers suggest that there may be significant utility in elucidating which identities are associated with health-related concepts, and harnessing positive health-related identities as a resource for health behaviour change (Oyserman, Fryberg, & Yoder, 2007; Tarrant et al., 2011).

Prior research conducted by Grossbard and colleagues have touched broadly on the influence of self and group-based identification among sports participants, and how they corresponded with alcohol-related behaviours. They evaluated the role of athletic identification as a moderating factor between athlete drinking norms and consumption (Grossbard et al., 2009a), whilst addressing the interaction of 'team attraction' on alcohol use within a separate study (Grossbard et al., 2009b). Both studies found a more pronounced relationship between perceived alcohol norms and reports of drinking for those reporting higher levels of identity and team attraction. However, the research stops short of fully emphasising the distinct mechanisms involved in personal and socially-orientated identity construction. Fundamentally, sport participation requires an individualised sense of personal athletic dedication, whilst simultaneously its involvement is also contained within group-orientated settings and a sports group membership.

Therefore, the current study looked to investigate both the individualised perception of an athletic (personal) identity, and the socially orientated

perception of sport group (social) identity, and their relative impact on alcohol-related behaviours. Drawing upon conceptualisations from social identity theorists, the intention here is to build on the notion that sport group membership provides meaningful personal attributes and group identities by elucidating the extent to which these parallel but distinctive sport-specific identities may relate to alcohol behaviour.

5.1.2 Drinking motives among student sportspeople

In past investigations, researchers hypothesised that heavy drinking occurred among student-athletes as a way of coping with the pressures and stressors of both academic and athletic commitments (Stainback, 1997; Valentine & Taub, 1999). However, studies exploring this avenue have not lent unequivocal support to this idea. For instance, when compared with general student samples, there was no difference in reported coping-related drinking motives between sport and non-sporting respondents (Martens et al., 2005).

In order to identify the sport-specific motives for drinking, Martens and colleagues developed the Athlete Drinking Scale (ADS; Martens et al., 2005). The construction of this psychometric measure was to combine general drinking motives with sport environment-specific factors in order to assess reasons for alcohol that were uniquely relevant to the sporting population. Its utilisation in subsequent studies found team-orientated and positive sport-related motives were among the strongest predictors for sportspeople's alcohol consumption (Martens et al., 2005; O'Brien et al., 2007; O'Brien et al., 2008). On the other hand, drinking to cope tended to be associated with experiences of negative alcohol-related consequences, rather than directly predicting consumption itself (Martens et al., 2003; Yusko et al., 2008). The evidence, therefore, suggests that the group-orientated motives underpinning drinking among sportspeople may uniquely promote, or are promoted by, one's sports involvement.

Motivational models of drinking detail a socio-emotional dimension that recognises the functional attributes alcohol has for social and emotional experiences (Cooper, 1994; Cox & Klinger, 1988). In this way, individuals cite more enhancement drinking motives when presented with a social context, or coping drinking motives to regulate negative mood states (Cooper at al., 1995). However, as put forward in Chapter 2, there is has been little research exploring how a person's identity corresponds with motivations for alcohol use (Cooper et al., 1995). In this respect, it might be reasonable to suggest that an identity framing of drinking motives can elucidate the functional attributes characterised to alcohol that are in line with group-based values and outcomes. Moreover, the ADS provides a measure that incorporates sport-specific motives for drinking (Martens et al., 2005), therefore allowing a more nuanced investigation of how sportspeople's drinking is reflexive to the sports environment, and of one's sport group involvement. By identifying the specific functions alcohol meet for particular groups, intervening strategies may be more effectively designed and targeted (Cooper, 1994; Miller, 1996). With this in mind, the current investigation sought to identify the links between drinking motives as a predictor for alcohol consumption, and sport-related identities and general wellbeing.

5.1.3 The current study

The aim of the current study was to examine the relationship between psychosocial factors of personal athlete identity and group-based social identity on sportspeople's drinking motives, self-reported alcohol consumption, and wellbeing. In order to test the relationships among the variables, theoretically informed directional associations were tested via path analysis. Based on inferences from previous strands of literature, it was hypothesised that sport-related identities and general wellbeing will be positively associated with higher alcohol consumption due to the socially orientated and positive motives connected with drinking in this context. Moreover, it was predicted that social and personal identity would relate to distinct drinking motives that facilitate

identity-specific content and value. However, analyses adopted bi-directional explorations between consumption and the variables of interest across time to assess directional interpretations arrived from the data.

5.2 Method

5.2.1 Participants

A purposive sample of UK university sportspeople recruited from the North West region in England participated (N = 504). Similar to Chapter 4's study methodology, the recruitment process identified university sport-related venues and their sports clubs. Recruitment of participants took place during group training sessions at these venues and respondents were offered a nominal incentive of £2 for their involvement.

Data screening resulted in 29 participants being removed from analysis due to ineligibility (abstinence/outliers), or incomplete responses. The final sample for Time 1 analysis consisted of 475 participants (mean age = 20.22 years, *SD* = 2.44; 55.6% male). Respondents were predominately white British (80.6%), and indicated they were primarily involved with a team-based sport (coded as a sport that involved three or more players competing on one side; 72.6%).

From the initial cohort, 466 respondents indicated that they were willing to participate in the follow-up study conducted six months later (Time 2). Following an exhaustive series of invitations and reminders, the response rate for Time 2 data was 21.9% (n = 102). Due to an inability to match their Time 1 responses, the longitudinal analysis excluded ten participants. The final cohort providing both Time 1 and 2 responses consisted of 92 participants (mean age = 20.83, SD = 2.21; 42.4% male; 68.5% team sports players). To test for attrition bias, ANOVAs compared baseline responses of respondents who participated only at Time 1 with those who participated at both time points. Analyses found no significant group differences across the main study variables (all *p*'s > .05; see Table 5.1 for demographic breakdown).

Table 5.1. Table of demographics between Time 1 participants only and follow-up (Time 1 and 2) respondents.

	Time 1 only (n = 475)	Time 1 and 2 (n = 92)
Age (years)	20.20 (2.52)	20.29 (2.12)
Gender		
Male	226 (59%)	39 (42%)
Female	157 (41%)	53 (58%)
Sport type		
Team	282 (73.6%)	63 (68.5%)
Individual	101 (26.4%)	29 (31.5%)

5.2.2 Measures

Alcohol consumption. As in the previous study, the AUDIT-C subscale (Saunders et al., 1993) was utilised as a validated and reliable measure of alcohol consumption. The AUDIT collates respondents' alcohol behaviours using a 12-month time range ("your alcohol use during the past year"), with the AUDIT-C as a three-item scale assessing frequency and quantity of consumption (current α = .77).

Drinking motives. The Athlete Drinking Scale (ADS; Martens et al., 2005) assessed sport-related drinking motives. The 19-item ADS self-report measure asks participants to indicate how strongly they agree (1=strongly disagree to 6=strongly agree) on items comprising three subscales for drinking. Positive Reinforcement related to alcohol use as a positive reward, broadly related to one's sport activity (e.g., "Winning or performing well is a good reason to go out and drink" current α = .88). Team/Group related to using alcohol within the context of the athletic group ("I drink because it helps our team develop team cohesion" current α = .85). Sport-Related Coping related to using alcohol to deal with problems associated with sport ("I drink to deal with sport-related stress" current α = .74). The respective items were summed and averaged to present three

subscale scores (overall α = .90).

Athletic identification. The Athletic Identity Measure (AIM; Brewer et al., 1993) measured the strength of individualised identification with the athletic role, and investment in sport generally. This 10-item scale asks participants to rate the extent to which they agree (1=strongly disagree to 7=strongly agree) with statements that encompass social, cognitive and affective elements of their sporting identity (e.g., "Sport is the most important part of my life"). Items were summed and averaged, with higher scores indicating greater identification to the athletic role (current α = .86).

Social identity. Cameron's (2004) three-factor model of social identity assessed group-based social identification collated across 16 items. In order to specify sports group membership as the reference group, the instructions for the scale proceeded with: "Consider how you feel about the team (other members) of your sport in general and not any specific member of the club". The scale measures group-level identification (1=strongly disagree to 7=strongly agree) across three validated dimensions: in-group affect (e.g., "In my sports team, I really feel that I belong"); in-group ties (e.g., "I feel strong ties to other team members"); and centrality (e.g., "I often think about that fact that I am a sports person"). Items were summed and averaged to present a score of social identification related to one's sports group (current α = .80).

Wellbeing. General wellbeing was measured by the Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007), a short and psychometrically robust scale of measuring individual and group-level well-being (Maheswaran, Weich, Powell, & Stewart-Brown, 2012). The WEMWBS comprises of 10 positively worded items relating to different aspects of positive mental health. It asks participants to circle (1=none of the time to 5=all of the time) the option that best applied to thoughts and feelings experienced over the past two weeks (e.g., "I've been thinking clearly"), to give a total self-reported score of wellbeing (current α = .84).

5.2.3 Procedure

Data collection for Time 1 occurred over a three-month period at the start of the academic year, with Time 2 data collected six months later. The recruitment processes identified university sport-related venues (e.g., sports grounds, stadiums, clubrooms, formal university sports programmes) and their affiliated sports clubs. Participants received a nominal incentive of £2 for completing the 15-minute questionnaire[6] and were informed that their participation would remain anonymous. Respondents consenting to participate in the follow-up component of the study provided additional correspondence details (email address). Six months after the initial Time 1 data collection, these participants were invited to complete the repeated questionnaire online. Reminder correspondence was sent fortnightly to unresponsive participants for eight weeks in order to maximise follow-up responses.

5.2.4 Analytical procedure

A review of the few longitudinal studies in this area highlights sports participation to be positively associated with alcohol use (Kwan et al., 2014). This relationship can also be moderated by gender (Crosnoe, 2002) and age (Kwan et al., 2014) while those participating in team sports indicated greater growth in alcohol use compared to those who participate in individual-based sports (Wichstrøm & Wichstrøm, 2009). The study aims centred on extrapolating the effects of identity and wellbeing on alcohol-related measures. As such, the present analysis controlled for age, gender and sport-type as covariates.

SPSS was utilised to screen the data and removed participants who had a substantial number of missing responses across the study variables (>50%, n = 6). Estimation Maximisation replaced random missing values. Normality testing indicated that the data were non-normal (Kolmogorov-Smirnov test all p's < .05). This reflects previous studies utilising AUDIT scores, which observed either

[6] See Appendix A for the full version of the study questionnaire.

positive skew for low-prevalence samples, or negative skew for high-risk drinkers (Bergman & Källmén, 2002). Transformations did not reduce skewness or kurtosis of the data, therefore, scores were kept in their raw form. All further analyses were conducted with bootstrapping to fit significant models onto 10,000-sampled population to compute 95% confidence intervals (bias-corrected) in order to adjust for non-normal distributions (Efron & Tibshirani, 1994; Preacher & Hayes, 2004).

SPSS AMOS was utilised to conduct path analyses. Cross-sectional analysis of Time 1 data identified paths for alcohol consumption at this baseline point. Due to the low responses obtained for both Time 1 and Time 2 data (n = 92), statistical analysis relied on repeated measures ANOVAs to assess longitudinal changes. A theoretically driven path model sought to interpret the relationship between the study variables across the two time points.

5.3 Results

5.3.1 Cross-sectional analysis

Using an AUDIT-total score of 8+ to indicate hazardous alcohol behaviour (Conigrave et al., 1995; Reinert & Allen, 2002; Zamboanga et al., 2006), 80.3% of the initial sample categorised as hazardous drinkers. Bivariate correlation analysis revealed that alcohol consumption associated most strongly with positive reinforcement drinking motives ($r = .55$, $p < .001$). Wellbeing related significantly to social identity ($r = .24$, $p < .001$), whilst demonstrating no significant association with athlete identity. Among the alcohol-related measures, athlete identity correlated most strongly with drinking to cope (ADS coping; $r = .26$, $p < .001$). Moreover, there was a significant positive correlation between social identity and alcohol consumption ($r = .10$, $p = .031$), alongside positive reinforcement and team/social drinking motives (see Table 5.2 for statistics).

Table 5.2. Pearson's correlation statistics among study variables.

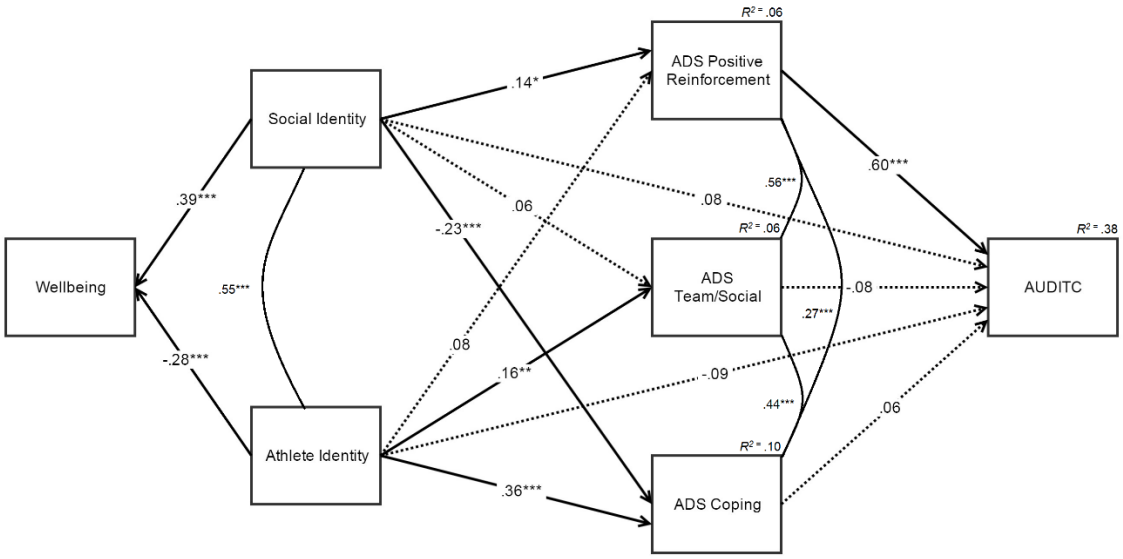
Variables	1	2	3	4	5	6	7	Mean (SD)
1. AUDIT-C	(.77)	.55***	.25***	.15**	.02	.10*	.04	7.75 (2.53)
2. ADS Positive Reinforcement		(.88)	.55***	.26***	.13**	.15**	.04	3.49 (1.11)
3. ADS Team			(.85)	.44***	.16***	.11*	-.03	2.44 (1.06)
4. ADS Coping				(.74)	.23***	-.05	-.16**	1.59 (.88)
5. Athlete Identity					(.86)	.54***	-.07	3.92 (1.13)
6. Social Identity						(.80)	.24***	4.89 (.72)
7. WEMWBS							(.84)	3.58 (.55)

Partial correlation: controlled for age, gender and sport-type (listwise deletion). Bootstrapped results based on 10,000 bootstrap samples. Cronbach's alphas on the parentheses.
* $p < .05$; ** $p < .01$; *** $p < .001$

Cross-sectional path analysis. The constructed path model (see Figure 5.1, standardised regression weights shown) specified the directions in which the two identity variables and wellbeing variables associated with drinking motives to predict alcohol consumption. Bivariate analysis found age and gender correlating with a number of exogenous variables (whilst sport-type did not) therefore these were included as controlled covariates in subsequent path analyses, however, their paths removed from the figure to aid visualisation of main path effects (see Appendix B for full AMOS figure). Overall, the model had good fit: $\chi^2 = 3.90$ ($df = 4$), $p = .420$, GFI .998, AGFI .979, RMSEA .007.

Statistical interpretations were reserved for direct and indirect paths only in order to evaluate the theoretical model. Two distinct paths emerged between the identity variables. Athlete identity had significant paths to wellbeing (negative, β = -.28), team and coping drinking motives (positive, β = .16 and β = .36 respectively). Social identification had significant paths to wellbeing (positive, β = .39), positive drinking motives (positive, β = .14), and coping drinking motives (negative, β = -.23). Positive reinforcement drinking motives were the only significant direct path to alcohol consumption (positive, β = .57). Ad-hoc reverse analysis for significant paths found no alternative better fitting model.

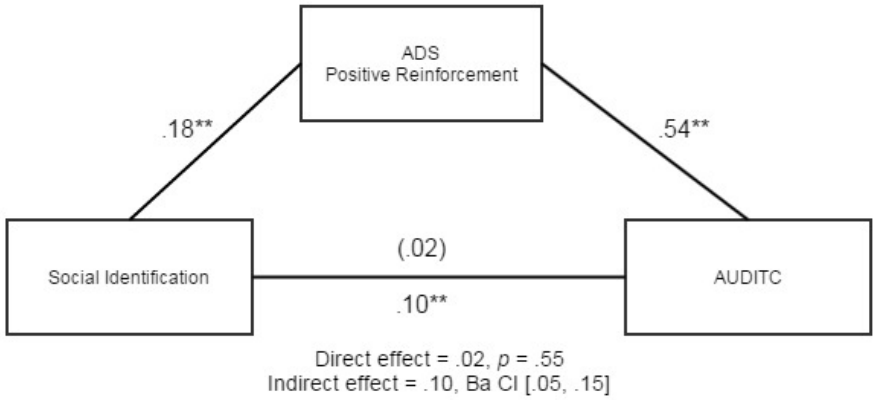
Figure 5.1. Path model: Influence of social identification and athlete identity on drinking motives and reported alcohol consumption.



* $p < .05$; ** $p < .01$; *** $p < .001$
Note: Non-significant paths are shown as dotted arrows. Bootstrapped results based on 10,000 bootstrap samples.

Indirect tests sought to identify mediated pathways between identity variables (person and social) and alcohol consumption by the three drinking motives subscales, conducted via AMOS bootstrapping procedures, set to generate 10,000-sampled population to compute 95% bias-corrected confidence intervals. Significant indirect effects were found on social identification, where ADS positive reinforcement fully mediated the relationship between social identification and AUDITC, β = .10, Ba CI [.05, .15] (see Figure 5.2). Further indirect tests found no other mediation effects.

Figure 5.2. Test for mediation by Positive Reinforcement ADS subscale on the relationship between Social Identification and AUDIT-C scores.



5.3.2 Longitudinal associations

Table 5.3 presents correlations between Time 1 and Time 2 study variables. Bivariate analysis revealed that alcohol consumption at Time 2 was significantly associated with positive reinforcement drinking motives at Time 1 (r = .51, p < .001). Additionally, there was an association observed between Time 1 alcohol consumption and Time 2 social identity (r= .23, p = .019), indicating higher alcohol consumption reported at baseline positively correlated with greater social identification at Time 2. Repeated measure ANOVAs calculated the differences between the variables (see Table 5.4).

Table 5.3. Correlation matrix among study variables across time.

Variables	1. T2	2. T2	3. T2	4. T2	5. T2	6. T2	7. T2
1. T1 AUDIT-C	.74***	.55***	.08	.17	-.03	.23*	.02
2. T1 ADS Positive Reinforcement	.51***	.62***	.26*	.26*	-.05	.17	.07
3. T1 ADS Team	.05	.21	.60***	.16	-.01	-.04	-.02
4. T1 ADS Coping	.01	.02	.09	.24*	.06	-.01	-.10
5. T1 Athlete Identity	-.05	.02	.10	.16	.71***	.42***	-.13
6. T1 Social Identity	.13	.15	.10	.06	.45***	.61***	.07
7. T1 WEBMWS	.07	.13	-.01	-.24*	.02	.26*	.50***

Partial correlation: controlled for age, gender and sport-type (listwise deletion). Bootstrapped results based on 10,000 bootstrap samples.

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.4. Repeated measures ANOVAs displaying mean differences between Time 1and Time 2 responses, with significant F and partial eta squared values.

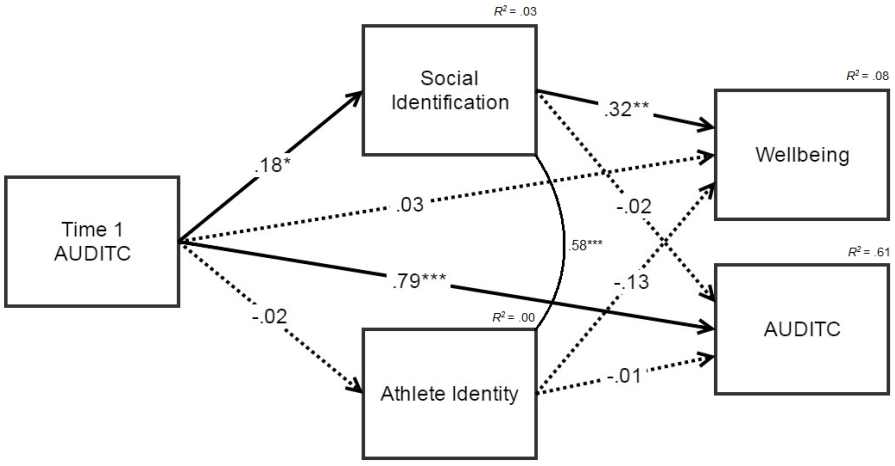
Variable	Time 1	Time 2	*F* Ratio	$\eta\rho^2$
AUDIT-C	7.77 (2.41)	6.81 (2.24)**	27.37	.24
ADS Positive Reinf	3.48 (1.05)	3.83 (.92)**	15.20	.15
ADS Team	2.45 (.97)	3.03 (.99)**	33.90	.27
ADS Coping	1.57 (1.02)	1.73 (.87)		
Athlete Identity	3.80 (1.15)	4.15 (1.12)*	12.85	.13
Social Identity	5.03 (.74)	5.13 (.74)		
WEMWBS	3.52 (.54)	3.50 (.59)		

* $p < .01$, ** $p < .001$

Longitudinal path analysis. A path model (see Figure 5.3, standardised regression weights shown) determined a model fit detailing Time 1 alcohol consumption preceding identities and wellbeing at Time 2. Owing to the sample size, the conceptual model presented allowed for one exogenous variable (predictor) and only the psychosocial factors of interest (social identification, athlete identity, and wellbeing) as endogenous variables (dependent). Overall, the model had good fit: $\chi^2 = .617$ ($df = 1$), $p = .431$, GFI .997, AGFI .9759, RMSEA .000.

Direct and indirect paths only were assessed in order to check the fit of the theoretical model. Alcohol consumption at Time 1 significantly predicted Time 2 consumption (positive, β = .79). The inclusion of this direct path increased explained variance from 2.9% to 61.3%, suggesting that past alcohol use significantly predicts future use (Norman & Connor, 2006; Ouellette & Wood, 1998). There was a significant direct path (positive, β = .32) between social

Figure 5.3. Path model: Influence of social identification and athlete identity on drinking motives and reported alcohol consumption.



* $p < .10$; ** $p < .05$; *** $p < .01$
Note: Non-significant paths are shown as dotted arrows. Bootstrapped results based on 10,000 bootstrap samples.

identification and wellbeing. Adopting a less conservative $p < .10$ level, a direct path (positive, $\beta = .18$, $p = .080$) between Time 1 AUDITC scores and Time 2 social identity was observed. Further analysis of indirect effects found no mediated paths. Finally, reverse analysis for significant paths found no alternative better fitting model.

5.4 Discussion

The current study examined athletic identity, sports group identification, and wellbeing among a sample of student sportspeople, and sought to identify how these factors related to drinking motives and consumption rates over time. Although no direct effects were found between the sport identity measures and consumption, indirect analysis at Time 1 revealed that social identification predicted greater alcohol consumption through positive reinforcement drinking motives. Whereas previous work has focused on identification moderating the link between perceived alcohol norms and personal consumption (Neighbors et al., 2010; Reed et al., 2007), the current findings suggest that sport group identification as an antecedent may engender motives for drinking that conceptualises alcohol use as a functional activity deemed relevant for the group. In other words, sport-related drinking may be a product of sport group involvement that encourages alcohol use as a reward for sporting activity (e.g., "I drink to celebrate athletic victories"). As such, it is a first step towards understanding sport-related drinking within the broader context of social occasion, and as a result of the sport-specific function it relays for those involved in sport. Interestingly, the cross-sectional path model analysis found that drinking motives encompassing perceptions of cultural and social considerations (e.g., "I drink because it's part of the culture of being an athlete") did not significantly relate to consumption. Taken together, these findings tentatively suggest that the positive *function* of alcohol may motivate consumption in this context more strongly than normative considerations (at this particular time of the academic year/season). From this perspective, it therefore shifts the emphasis

away from the influence of normative perceptions motivating drinking. Instead, it points to how sports groups may conceptualise drinking as a functional sport-related activity performed among teammates and its importance for group identity.

Moreover, positive reinforcement drinking motives held the strongest association with alcohol consumption at both time points (Martens et al., 2011; Werner, Walker, & Greene, 1995). This delineates positive reinforcement drinking motives as a crucial variable for understanding sports-related drinking and points to the sports group identification as a potential vehicle for engendering such perceptions. With this in mind, current findings shed light on the positive functions of alcohol within this context and present this particular motive as an important pathway to evaluate and target.

The repeated-measure ANOVA found a significant increase in positive reinforcement and team-oriented drinking motives, while alcohol consumption decreased. Although this pattern of findings is in opposition, a possible explanation may be that sportspeople's drinking motives may be primarily influenced by interactions with their sports group across the year. In this way, drinking may be more readily encouraged to orientate toward positive and team-based motives; however, their actual patterns of consumption may reflect group-based influences (Martens & Martin, 2010). As such, further exploration should consider how the sports group communicates the sports-specific use and function of alcohol and what impact this has on consumption patterns.

Further, assessments of the longitudinal data found a positive association between Time 1 alcohol consumption and Time 2 social identification, indicating that greater alcohol use among the current cohort coincided with increased sports group identification over time. This corroborates previous research suggesting that alcohol use is perceived to be an identity-defining behaviour (Livingstone & McCafferty, 2015) and, in particular, ethnographic studies that

suggest drinking behaviours facilitated the building of sports-specific identities (Clayton & Harris, 2008; Crocket, 2014; Curry, 1998). The present findings thus complement research that suggests the construction of identity can take place through strategic and enjoyable consumption practices that serve to strengthen the social ties through a shared social drinking experience (Measham, 2004; Szmigin et al., 2008). Moreover, the path models fit a significant positive direct path only between social identification and wellbeing at both time points. These findings may, therefore, pose a dilemma concerning the best way to address alcohol use among sportspeople when it is entwined in the positive psychosocial domains of their social lives (Zhou et al., 2014). Importantly, however, these preliminary findings suggest that social identification may be a resource for positive psychological wellbeing in this context. As such, it may provide initial support for the utility of an applied social identity approach to this particular health dimension in sport.

Finally, the present analysis found no significant paths between athlete identity and alcohol consumption, with positive associations with drinking found between respondents' sports group identification only. This is in line with previous reports, which, in a similar way, indicate only weak associations between athletic identity, and AUDIT scores (Partington et al., 2010). Moreover, findings in Chapter 4 indicated that the athletic role significantly reduced consumption for participants who engage in individual sporting activities Prior research has demonstrated how identity 'shifting' can influence whether people engaged in health promoting behaviour, whereby priming an identity positively oriented to health can reduce engagement in risky behaviours (Berger & Rand, 2008; Tarrant & Butler, 2011). In this instance, the way an athlete defines himself or herself may account for different responses to alcohol. For example, when one's sport identity is related to athletic performance and ability (e.g., "I feel bad about myself when I do poorly in sport") and embodies the perception of health and fitness, it may provide a socio-cognitive positioning that can deter alcohol

use. Conversely, when an athlete's sport identity is related to being a rugby player, a group that is perceived to drink more exuberantly than the squash club does for example (see Chapter 6), it may determine the pattern of drinking exhibited by rugby members when given the opportunity. Tentative suggestions from current findings, therefore, posit that shifts in self-categorised identities (Turner & Oakes, 1986), may have an influential role in orientating health behaviours (Tarrant & Butler, 2011). Furthermore, Grossbard et al. (2009a) found that athletic identity moderated associations between weekly drinking and alcohol-related consequences, where those with higher levels of athlete identity revealed less of an association compared to those with lower athlete identification. Combined with previous research, the current findings indicate further investigation into the impact of an athlete identity is warranted in order to elucidate how this particular sport-related identity may have useful implications for health strategies in this context.

Notwithstanding the contributions of the present findings, one of the main aims of the study was to identify longitudinal relationships between the variables of interest. However, the low response rate meant that only a small cohort provided responses for both time points. The sample size restricted complex longitudinal path modelling, as rules for statistical power could not be met (Tabachnick & Fidell, 2001). In this instance, in order to afford a judicious commentary of the path effects in the longitudinal model, a less conservative p cut-off value of .10 was adopted. Fisher (1956) suggested that a p value should be used to as a measure of evidence against a hypothesis. The current theoretical model was constructed in order to identify associations and pathways that have been as-of-yet unexplored. As such, the statistical interpretations of the path effects provides an indication of an association (whether this is significantly at 90% or 95% chance) and, therefore, presents an opportunity for continued model testing. This sample constraint also meant that analysis relating to sport-type could not be adequately assessed to corroborate findings from Chapter 4.

However, continued research can build upon present findings with the aim of employing more advanced forms of statistical modelling (e.g., multi-level modelling).

A further methodological constraint to current interpretations relates to literature that suggests sportspeople's alcohol use varies according to the time of year, i.e., seasonal status (Doumas, Turrisi, Coll, & Haralson, 2007; Martens et al., 2006b; Martens & Martin, 2010). A counter-argument to this contention would be that these studies involved elite US collegiate athletes and, therefore, such differences may not apply to UK university sportspeople. Nevertheless, the present study did not control for possible seasonal influences. Perhaps a better reflection would be to consider the time period surrounding the two data collection points, Time 1 being in the first few months into the academic year and Time 2 collection occurring towards the tail end of the year. Previous studies have identified the variability in drinking trajectories among students across the year as malleable to academic commitments, for example subsiding towards the summer months with the approaching exam period (e.g., Tremblay et al., 2010), which may explain, to some extent, the decrease in AUDIT-C scores observed in the present study. In order to contextualise fully drinking among university sports participants, and to avoid the pitfall of seasonal and/or academic fluctuations, there may be value in adopting a longitudinal design with multiple data points spread at smaller intervals to capture more precise process of change (Singer & Willett, 2003). Thus, the weakness of the current design is the two-wave demonstration of an *incremental* change that limits deeper analytical interpretations, such as the *shape* of a growth trajectory, or the *speed* of change.

A final reflection of the current methodology considers the use of both pen and paper face-to-face administered questionnaire data, and an online-based follow-up design. Previous research has discussed the validity of adopting differing formats of survey questioning in the past (Yun & Trumbo, 2000), with

some authors asserting that responses are generally consistent across presentation formats (Gosling, Vazire, Srivastava, & John, 2004). However, in a similar fashion, there may also be extraneous effects from the variations in the testing environments experienced by participants. In this case, the situation in which responses were given (sports field versus online) may be privy to inherent contextual shifts that can have a confounding influence on responses. For instance, online responses provided away from the social setting of post/pre-training grounds may have provided a less valid measure of social identification and/or alcohol-related behaviours due to the removal of contextual cues of one's current social and environmental location. Although the current methodology was designed to aid the flexibility and accessibility of follow-up testing, it also presents some inherent epistemological and ecological validity limitations.

5.5 Summary

In sum, the present study sought to elucidate the associations between personal and social sport-related identities, and general wellbeing, as antecedents to frame alcohol-related behaviours. Cross-sectional examination revealed that positive reinforcement sport-related drinking motives fully mediated the relationship between sport group identification and alcohol consumption. This finding provides insight as to how strong identification with one's sport group may engender drinking motives that view alcohol as a positive and rewarding activity relating to sporting involvement. The longitudinal analysis found that alcohol consumption positively related to increased sport group identification, and suggests that sport-related drinking may hold more nuanced and strategic value *for* group-level identity processes. Moreover, the divergent patterns of association between athletic identity and sports group identification on the alcohol-related measures adds weight to the assertion that both forms of identity should be examined as distinctive psychological processes. By recognising these 'dual' sport identities, interpretations of the current findings propose that they may potentially act as a two-fold opportunity to harness problematic drinking on

both an individualised personal level and a social group level. The present study offers a potentially fruitful topic for further research and intervention, and points to how identity principles may be utilised to address consumption and promote wellbeing in this context. With this in mind, the next chapter adopts qualitative methods to explore the meaning and functions given to consumption practices performed during sport-related drinking occasions underpinned by a social identity framework.

6 A Qualitative Exploration of Alcohol Behaviours among Student Sportspeople*

As highlighted in the introductory chapters, an abundance of empirical research has underscored the problematic link between sport involvement and hazardous drinking (Cadigan et al., 2013; Leichliter et al., 1998; Partington et al., 2012). Population and survey data collection have allowed researchers to collate statistical knowledge on quantity, frequency and intensity of alcohol consumption among student sportspeople (Wechsler et al., 1997). As such, these approaches have been helpful in bringing to light the problematic rates of drinking in this particular subgroup. However, scholars note there has also been little diversity in the research methods used across sport psychology (Biddle, 1997; Hagger & Chatzisarantis, 2011) and alcohol research (Dowdall & Wechsler, 2002; Neale et al., 2005). Moreover, Rehm et al. (1996) argued that drinking is primarily a social act, therefore, it is necessary to investigate the social context of alcohol consumption and its associated behaviours. In this way, qualitative methods present an appropriate methodology to explore the social and cultural contextual framework that surrounds sport-associated drinking due to its ability to capture better these context-embedded experiences (Gilbert, 1990).

Following these considerations, this chapter presents a theory-led qualitative study seeking to explore sportspeople's drinking. It draws on insights from the social identity perspective (e.g., Jetten et al., 2014; Livingstone & McCafferty, 2015; Reed et al., 2007; Tarrant et al., 2012) to elucidate how social identity processes may be shaping alcohol-related practices among student sportspeople. Thus, this constructive approach (Lincoln & Guba, 1985) allows for

* This chapter is taken from Zhou, J., & Heim, D. (pending revisions). A qualitative exploration of alcohol use among student sportspeople: A social identity perspective. *European Journal of Social Psychology.*

an in-depth examination of how sports participants experience, recall and give meaning to their alcohol behaviours. Importantly, the theoretical framing of the study, analysis, and thus the interpretations, constructs a deductive examination in order to qualify how social identity processes may form the basis for alcohol use in this context. In other words, the investigation seeks to align participants' narratives with social identity-based interpretations in order to derive theoretical meaning to sportspeople's alcohol behaviours. By doing so, the current study aims to provide insight into how such mechanisms may be positively exercised for healthier consumption practices.

Recent social identity-based research illustrates how health behaviours and outcomes can be derived from our social networks (e.g., Dingle et al., 2014). Perceptions of normative conduct, reactions to social cues, and the utility of social relationships, are found to be conducive during the (dis)engagement of substance use (c.f. Haslam, 2014). To this effect, alcohol-dependent patients with a higher proportion of non-drinking social connections are more likely to exhibit better long-term alcohol treatment outcomes (Zywiak, Longabaugh, & Wirtz, 2002). However, while supportive social networks can be associated with improving health outcomes (Sani, 2012), it is also understood that social connections to using groups may also initiate and maintain unhealthy behaviours (Dingle et al., 2014). Social identity elaborations within small group research (e.g., Hogg, 1996; Hogg & Abrams, 1993; Levine & Moreland, 1994) detail how interactive individuals within groups can adopt practices in order to promote group cohesion and in-group distinctiveness, and govern members' actions in-line with valued group-based norms and goals (Postmes, Haslam, & Swaab, 2005). In this respect, social identification provides the basis for psychological meaningfulness related to group life. However, its processes are also operationalised as mechanisms for sustaining identity-relevant behaviour (Hogg, Abrams, Otten, & Hinkle, 2004), be it healthy or unhealthy.

Contemporary research tends no longer to depict young people's alcohol use as mindless pursuits of drunkenness but as a form of strategic and calculated socially orientated behaviour (Szmigin et al., 2008). As such, a social identity framework may afford a better understanding of how group-level processes help shape social behaviours, such as drinking. With this in mind, an in-depth exploration of sportspeople's drinking behaviours can serve to elucidate what group processes occur to guide and formulate alcohol-related practices and experiences. Moreover, sport researchers have lamented a lack of theoretical and conceptual frameworks for sport-related drinking that may be required to understand better this issue (Green et al., 2014; Palmer, 2011). In order to address this caveat, the present qualitative design and analysis adopt the social identity perspective to provide a theory-led examination of sportspeople's narratives around sport-related drinking.

6.1.1 The current study

The purpose of the present study was to utilise open-ended questioning and thematic analysis to examine sportspeople's drinking from participants' own perspective (Willig, 2013). Theoretically-derived questions coordinated the semi-structured interviews in order to extract narratives that may (or may not) reveal assertions broadly related to tenets of social identity. As such, the interviews were guided by topics pertaining to self-concept and group membership (Turner, 1985), group influences and motives for consumptive patterns (Postmes et al., 2005), and the role of alcohol in relation to sport involvement, and the significance of these experiences (Griffin et al., 2009). Similarly, social identity concepts were used to structure the thematic analysis in order to provide evidence for emerging social and psychological mechanisms interpreted as bridging context and behaviours (Hayes, 1997). In summary, the current study sought to identify qualitatively how social identity processes operate to influence engagement (or disengagement) of alcohol use among student sportspeople.

6.2 Method

6.2.1 Sampling

Research participants comprised of a diverse group of 22 university sporting individuals (12, male, 10 female) recruited from the same university in the North West of England, which resulted in a cohort of similar age and ethnicity (mean age = 20.41 years, SD = 2.02; 95% Caucasian). Twelve participants (male = 6) were recruited from team sports clubs (rugby, football, hockey, volleyball) and 10 participants (male = 6) from individual sports clubs (squash, badminton, swimming). The majority of the cohort indicated participating in their chosen sport at a social/club level (n = 18), with four individuals competing at county level. Seven individuals were involved with their sport group in leadership roles. Within the cohort, one participant did not partake in regular alcohol consumption and identified as a non-drinker (male, 21 years, badminton player). One participant (male, 21, years) identified as both an individual sports player (badminton) and a team sports player (football), and therefore discussions included his experiences with both sporting groups.

6.2.2 Procedure

Following institutional ethical approval, recruitment of prospective participants took place at sports centres and grounds. A female researcher in her mid-twenties conducted the recruitment and subsequent one-on-one interviews. Participants granted permission for the recording and transcription of the interview before the commencement of each session. During transcription, pseudonyms replaced references to names or places to uphold anonymity.

Open-ended questions aided by a semi-structured interview guide (Turner, 2010) explored participants' sports group membership and personal experiences with drinking, and the interaction between the two, and encouraged narratives about how and why alcohol was consumed (see Appendix D for interview guide). The interviewer prompted participants to expand on their

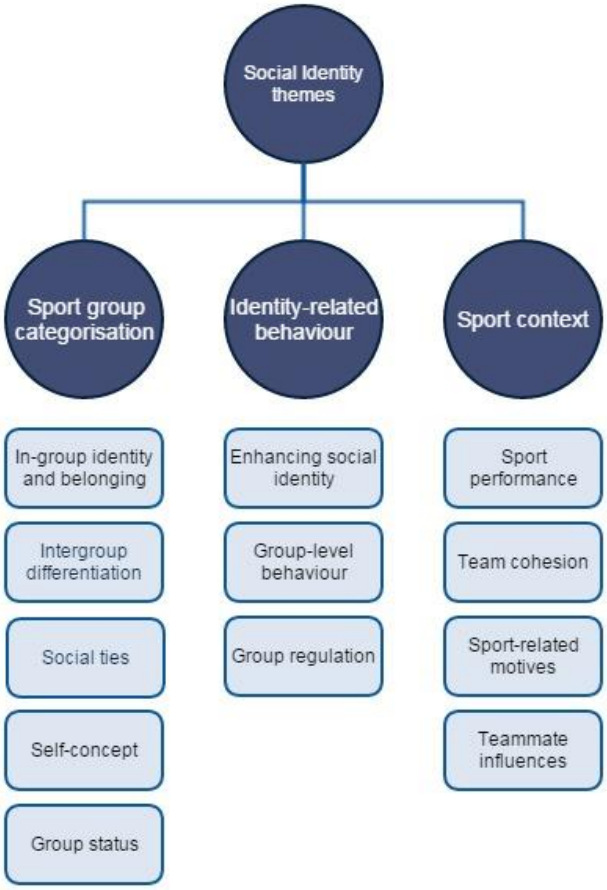
answers when referring to social experiences or interactions perceived to influence their drinking behaviours. Questions often included probes, such as "can you explain why" and "what does that mean" in order to fully elucidate participant's descriptions (Braun & Clarke, 2013). The interviews typically lasted between 30-40 minutes (mean = 32.50, *SD* = 5.50), and upon completion the participants received £10 compensation for their time.

6.2.3 Analytical strategy

QSR NVivo was utilised to analyse verbatim interview transcripts. Thematic analysis was specifically chosen as a flexible research tool to describe patterns across qualitative data (Braun & Clarke, 2006). Moreover, this qualitative methodology allows prior theories and deductive research aims to guide analysis, rather than solely by the data collected (Willig, 2013). The stages of the theoretically-led analysis were structured in-line with Braun and Clarke's six-phase methodology for thematic analysis (c.f. Braun & Clarke, 2006).

Transcription and repeated reading of each interview allowed for familiarisation with the data to determine recurring semantic similarities across participants (Stages 1 and 2). The data in these codes were analysed to collate relevant extracts that corresponded with the overarching themes in order to interpret attributional meaning to the content (Stage 3). A review of the themes and content clarified internal homogeneity and external heterogeneity (Stage 4). Collated extracts underwent scrutiny for coherence and consistency in their meanings and themed grouping. The constant comparison of themes ensured independence and distinctive narratives. Finally, the validity of the theme was checked against the whole dataset, before defining and naming (Stage 5). A theoretical map provided a diagrammatic representation (see Figure 6.1) and definition of the themes to aid data analysis (Stage 6).

Figure 6.1. Thematic map corresponding data content with social identity themes.



Themes were determined by collating reoccurring semantic similarities across the entire dataset (i.e., not within data specific to one individual) where clusters of text captured meaningful concepts related to social identity processes, namely dimensions of group perceptions and the alcohol behaviours associated with them. The structure of the overall analysis and discussion explicitly sought to identify social identity processes as the guiding basis for alcohol-related behaviours. Analysis interpretations provide exemplifying extracts as supportive evidence, with gender, age and sports group details accompanying quotes in order to present a demographic profile.

6.3 Results and analysis

Participants' narratives on sport-related alcohol use typically centred on drinking occasions called 'socials'. These events, classified as organised socialising

evenings with their respective sports club, were usually held on the same evening as a competitive match (although not exclusively so). The majority of the sports teams held weekly socials, however, there were differences between clubs – for example, the squash players disclosed their club had monthly socials and were unable to hold weekly events due to the small numbers in their group. The descriptions of socials detailed them as evenings reserved for socialising with teammates, although all participants stated that these events were non-exclusive and non-sporting members welcomed to be "part of the team". The diversity in the sample provided an overall dataset of distinct experiences; however, the theoretical framework orientated the thematic analysis to identify three overarching themes: (a) actions and reactions relating to sport group membership; (b) identity enhancing, monitoring and regulating drinking practices; and (c) contextual and sport-specific significance of alcohol use.

6.3.1 Sport group membership: Actions and reactions

In-line with the self-categorisation component of social identity traditions (Turner et al., 1987), a ubiquitous theme centred on participants speaking about their experiences of being a member of their sports team in terms of their social group and identity. Narratives described the group as one of positive and, for some, primary importance. Participants often referred to their sport group membership as a source of pride and positive esteem. When probed for their feelings of identification, participants readily stated their self-categorisation to their sports group. Moreover, their narratives suggest that this categorisation was emphatically recognised during their social interactions:

> *It's my title (laughs) sometimes when [people] don't even know my name they just go "ah, hockey girl".* (Female, 19, hockey)

> *There's a running little joke going through the badminton society which is that every new person I meet I introduce myself as "Hi I'm <name>, I'm [a member of] badminton". So yeah, I'm very proud to be part of the badminton society.* (Male, 25, badminton)

Participants also discussed their relations with teammates as positive social ties that they wished to uphold. These favourable group opinions seemed to transcend to intergroup comparisons of drinking occasions:

> *It's like, everyone gets really drunk when we go out with the swimmers (laughs) whereas my flatmates, there's sometimes tension with my flatmates, they sometimes argue... But the swimmers all really get on. Everyone just gets on!* (Female, 19, swimmer)

Whilst overall favourable opinions of their sports group involvement were voiced, the intensity of these social ties between group members varied. Some highlighted that team members were very close knit (*"it's sort of like a family more than just mates who go kick around"* male, 20, rugby). However, in one case, a female footballer described her relationship with her teammates as not an emotionally close one (*"I wouldn't ring them up if I had a problem or anything"* female, 19, football), although also stipulating that overall the group was a good collective of friends. The differences noted here suggest that there need not necessarily be emotional ties to foster this sense of group collectiveness, but that merely being a participatory member was perceived to be sufficient.

Further to this, assertions suggest that committed participation was a crucial aspect for group membership. Participants believed a perceived commitment to the group helped to ensure a sense of collectiveness. In this way, the club could be seen to function more as a "big group", and that being part of a team required individuals to make an effort (*"otherwise there's no point in being on the team"* female, 19, volleyball). However, participants also regarded this sense of commitment as a reason why individuals may be compelled to attend drinking occasions:

> *It sounds like weird thing to say, but obligation maybe? Like… being part of the society obviously you identify with them. And every society always organises a social night out or a social event. And I think there's a lot of pressure on those students to turn up to them. You don't pressure them into*

> *going but you're almost… badger them so much that they almost feel like they have to go.* (Male, 25, badminton)

Although questions guiding the interview sought to gather participants' own group experiences, descriptions of between-sport comparisons naturally arose. In one particular narrative, a case of movement between groups helped emphasise the participant's point about her current group membership being a more positive and collective experience. Consequently, her in-group ties and friendships within her current sports group framed the positive evaluations of her drinking experiences:

> *I used to play <club sport> here last year and then I actually switched to hockey. The society for <club sport> is very… cliquey. A few of them I'm still really good friends with and the majority of them are lovely, there's just a select few that… it's just very, erm, separate. They're very cliquey, you're not allowed to speak to these people. [But] the hockey teams are very close, we all get on really well, there's no bitchiness or arguments, nothing like that. So really when you go out it's just like going out with your mates really.* (Female, 19, hockey)

Moreover, the characteristics of other clubs compared against participants' own sports group appeared during descriptions of drinking occasions as a tool for supporting their own group's behaviours:

> *I live with three rugby players and I've heard the horror stories from their socials. I just think, well we would never do that! I mean… people might go "here, down this!" kind of thing in terms of a jagerbomb or a shot, but compared to what the rugby lads, or what I've heard the rugby lads do, you just kind of go "oh no" (laughs). I think kind of the different drinking cultures within teams…. I mean you compare squash and rugby and it's kind of laughable the difference… but for us, it works. For other teams they'd just see it as ridiculous and pointless, but for us it works.* (Female, 20, squash)

In particular, the comment "a laughable difference" highlights how the participant perceived a tangible distinction in drinking behaviours among different sports groups. However, the "for us it works" mention emphasised the importance of what functioned well for the club and their members, and revealed

that this difference did not detract away her own social experiences with her group. In the above examples, the perceived differences between groups were used to accentuate own group definition. Moreover, the importance of distinctiveness in social identity terms refers the evaluation of differences between one's own group and other groups, which acts as a source of positive self-concept and social identification (Brewer, Manzi & Shaw, 1993). In this case, sport group-specific consumptive patterns may act as a salient behaviour that characterises the distinctiveness between sports clubs. This social comparison discourse presents an opportunity to feedback on the positive experiences of one's own group in relation to others, and may function as a means of reaffirming belongingness to the group.

Narratives from the non-drinker in the study illustrated the importance of belonging to the group for self-concept. He stated that he particularly enjoyed the "pack-like" mentality when he was among his teammates. This was not garnered from his engagement in alcohol consumption, but from his status within the group that provided him the experience of having an "army of players". Moreover, the participant suggested his position of leadership compensated for his non-drinker status.

> *I think I sort of get away with the not drinking thing because… I've been one of the captains from early on, whereas I think if I was just a player, if I didn't really have any status in the club, I think I wouldn't be noticed because I didn't drink. But because I'm the captain I can sort of get away with it.* (Male, 21, badminton)

Previous research identified sporting individuals in leadership positions were more likely to engage in heavy alcohol use (Leichliter et al., 1998; Lewis, 2008). However, the current analysis finds that such positions may also have safeguarding qualities against potential marginalisation from non-alcohol use. This is further demonstrated with continued description of how the participant used his status to support other none or light drinkers:

> *Well one of the first years, she was tee-total before she came… I said to her on the night, I said to her I don't drink either if you don't want to you don't have to, you can just stay with me and my lot if you don't want to drink.* (ibid)

Nevertheless, research highlighting the 'black sheep effect' (Marques & Paez, 1994) suggests that group members may engage in in-group bias towards prototypical members (Tajfel & Turner, 1979), and in-group derogation of unlikeable members (Marques, Yzerbyt, & Leyens, 1988). From this perspective, group members who do not comply with the relevant in-group norms are likely to be evaluated more negatively than an outgroup member (Marques & Yzerbyt. 1988). With this in mind, those that deviate from social behaviours that are in-group relevant, such as sport-related drinking, may be more likely to experience greater social exclusion. However, interpretations of the current participants' experience suggest that sports involvement and group commitment, in terms of leadership status, may act as a protective factor against social exclusion from alcohol-related attitudes. Importantly, the inclusion of this divergent case within the analyses provides novel insight into how a non-drinking identity is accepted, with descriptions here highlighting the group-level processes that function to produce a positive self-concept related to sport group involvement that is removed from alcohol use.

6.3.2 Identity enhancing, monitoring, and regulating drinking practices

Social identity principles suggest how groups have the power to deliver normative information that both describes and prescribes the behaviours of its group members (Turner, 1982). Moreover, these group-level processes can explain how group members self-monitor in accordance with group characteristics (Hogg & Reid, 2006), as well as regulating fellow members behaviours to adhere with group norms (Stott, Hutchison, & Drury, 2001).

In a similar way, the majority of participants referred to sport-related drinking as expressed through regulated practices or made inferences to how there is an element of self-monitoring. This appeared within the data through the presence of coordinated group practices. Descriptions of drinking events frequently involved the mention of "rules" that encompassed both drinking behaviours (*"left-hand drinking only"* male, 20, rugby) and social behaviours (*"no phones on social"* male, 23, hockey). Those that did not execute these group rules correctly were "punished", either with an alcoholic beverage or with having to perform an embarrassing activity. These rituals were considered traditional practices serving to create a more consistent and social drinking environment, and were steadfastly upheld by all members of the group. Here, alcohol is also utilised as a tool for upholding social standards. As such, its practice underscores how the sports cohort naturally engaged with group monitoring behaviours throughout the duration of these social events.

> *Social is all about rules and enforcing the rules. For example, like social 90% of the time will start at half seven. And if you're late by five seconds then you have to down a late pint, just for being late. That encourages people to be on time, things like that. We have things like no mobile phones on social so you're not allowed to have your phone. So it keeps it a lot more social, because I'm sure you've probably seen you go for a couple of drinks and people are sat on their phones. So we eradicate that. There's no smoking on socials so you can't go outside and smoke and be out there. And then it's just silly things, like you've got to drink with your left hand. No pinky on your pint. You have to double tap your pint when you put it down. Whenever you finish your pint you have to wipe it on someone else's shoulder and then put it down. So all simple things like that, and if you don't do any of it right then you have punishments.* (Male, 23, hockey)

Additionally, narratives suggest that participants felt that being part of a sports group came with certain conditions that help govern behaviours. Some sports group leaders mentioned sport-related penalties, such as not being able to play the next match, as a condition used to monitor alcohol-related behaviours:

> *You have the captain and the committee. The social and the football are all communicating more and… it's easier to police. Say if a lad on a night out lets you down, lets the lads down, by doing something stupid or getting into trouble – you've got the policing where you can say "right you're not playing the next game".* (Male, 24, football)

Taking responsibility for each other was another means of managing group behaviours during drinking events, as described by one female rugby player:

> *[The captain] designates different jobs to different people, like can you look after this person... So you stay with that person until you get to <drinking venue> so that they know everyone's got someone. And it'll always be someone that's sober and someone drunk, never two drunks, never two sobers. So you're looking after this person.* (Female, 23, rugby)

There was an overarching narrative of "looking out for each other", and that the club as a collective would monitor drinking. For example, some participants described how the group utilised drinking games with water if any members got too drunk in order to "sober them up" while others communicated how team members could be directed explicitly to refrain from continued consumption:

> *It is quite regulated actually when I think about it. 'Cause when certain people have clearly had so much they'd be like, some of the other captains will take their drink and be like "no you've had enough of that, you're having water" or "no you're not having anymore until you've necked this pint of water". Because people do the whole drinking game "we like to drink with so-and-so because thingy is our mate" like they'll make them do it with water, just to sober them up.* (Male, 21, badminton)

> *I mean, if someone see's that someone is starting to drink a lot more than they should have, like me being the prime example, they'd say like here's some water, stop drinking now.* (Female, 18, badminton)

> *We had a lad last week doing cops and robbers who, after like the third or fourth pub, looked a bit staggery sort of thing when he was being held up by two other people. And then we just told him to stop drinking for half an hour or whatever, and he sobered himself up. And he ended up spending the whole night out.* (Male, 22, volleyball)

However, the narratives suggest that "looking out for each other" might also be an invitation to drink excessively, as participants disclosed how aware they were that there was the insurance of their fellow teammates to take care of them if they became too intoxicated:

> *In my first year I could get as drunk as I wanted to back then and there'll always be a girl looking after you.* (Female, 20, hockey)

Furthermore, there was evidence of coexisting patterns of enforced drinking practices where, on occasions, the group's activities dictated what and how much team members should consume. Importantly, these were framed as practices especially considered for group dynamics. For example, the "standards drink rule" instructed members to purchase a set number of drinks at the start the evening. This made everyone "equal" during these socials:

> *At social that's the good thing about it, everyone drinks the same. So it's kind of like "you're more drunk than me" nothing like that. Some people hack it more than others but yeah the standard is five pints. So everyone's equal then, everyone pays the same amount. There's no dispute about… whatever.* (Female, 19, hockey)

This "equality" consideration functioned to provide all its members to have the same drink-related experiences. A note of concern, however, is that this common practice could be classified as binge drinking activity, typically defined as consuming five or more drinks on a single occasion[8]. However, the meaning for this practice suggests that participants viewed the concept of binge drinking as

[8] A common definition is a drinking session that exceeds six/eight units of alcohol (women/men; The Office for National Statistics). However, there is also reference to the binge drinking as the consumption of four/five or more drinks in one sitting (Wechsler & Nelson, 2001), or consuming half or more of the weekly unitary allowance in a single session (Norman, Bennett, & Lewis, 1998). More qualitative differentials include, 'feeling very drunk at least once a month in the last 12 months' (Matthews, Brasnett, & Smith, 2006), and 'drinking to get drunk' (Department of Health, 2007). As such, researchers have raised the issue that there has been no consensus on its definition and 'cut-off' criteria (Herring, Berridge, & Thom, 2008; McAlaney & Mcmahon, 2006).

inconsequential. Instead, this "rule" provided a socially meaningful experience, rather than considered as a pursuit for heavy drinking per se.

An interesting group activity that also emerged was the reverence of a themed 'fancy dress' social event. Participants cited this particular practice as a way of facilitating a group identity:

> *So we have a theme that you've got to come dressed up as… it's just something, I suppose it gives it when you're out, it gives you again a collective identity so like… y'know if you see someone wearing whatever it may be you know they're from such and such a sport society. Or if someone's wearing something else they're from such and such a society so you sort of know who people are, where they are, and whatnot.* (Male, 25, badminton)

Socialising in costume made the experience of sport-related drinking occasions more "special", and more than just a "regular night out". Comparable to showing commitment, being seen to make in effort in dressing up in accordance to the evening's theme was a way of bringing people together (*"It's sort of like a united front, like everyone's dressing up together"* female, 18, volleyball). On an intergroup level, this practice acted as an effective way of demonstrated group size *("when everyone dresses up as the same thing it shows how many there are of you"* ibid). Additionally, one participant described how significant the practice was in facilitating in-group relations at the early stages of sport group membership:

> *I always say it's important for people to come dressed in the theme or in the shirt and tie because I remember my first social at <the university>, and it was joker social we were all dressed up as the joker… and after the social, I didn't know everyone there, but after the social when we were out in the <the bar> it was easy for me to find the footie lads. Even though I didn't know everyone I could see 'oh there's someone with a joker outfit, I'll go over and talk to him' and they could obviously see me. So I think it's quite important, in terms of knowing each other.* (Male, 18, rugby)

However, whilst such activities communicated a notion of togetherness, participants' descriptions of "being in the same boat" also aligned with a perceived loss of superordinate control:

> *There's kind of no consequences as everybody else is letting their hair down, you're all the in the same boat you're all gonna get to <the bar> in the same state.* (Female, 18, squash)

> *Everyone's in the same boat, everyone's drinking, there's not really anyone… in their right mind to say just stop.* (Female, 18, volleyball)

Many of the experiences related to sport group drinking suggests that drinking practices served to facilitate a sense of collectiveness. However, consequently, this may also disempower individual drinkers' abilities to make or express alcohol-related judgements.

6.3.3 Contextual and sport-specific significance of alcohol

From an ontological perspective, the social identity approach emphasises the dynamic interaction between the environment and our perceptions (Turner, 1991). In accordance, this theme exemplifies how the importance of team cohesion and social interaction are significant aspects attributed to sporting success, a goal that forms the contextual backdrop for the existence of sport itself.

Participants typically described alcohol use and drinking occasions as a vehicle for social interaction, and a way to enhance cohesion within their sports group. Moreover, the study participants considered this cohesion as imperative for experiences both on and off the playing field. A number of references were made to circumstances where being on better social terms with their teammates allowed for smoother interactions during game/match situations. This appeared significant for both team and individual sports players:

> *It's hard to play a team match when you don't know the person you're passing to, because then you feel like you can't, y'know, shout for the ball.* (Female, 20, hockey)

> *If you go to socials and that with them you get to know them, and then when you're playing or when you're at coaching you can have a laugh…. I find that players that I've partnered with, if I've known them outside of coaching I tend to do better with them. Like I feel more at ease with someone that I know on a personal level. Like you can give me a really good player but if I've never spoken to them or I don't know them, I'd probably play worse than if you give me someone average that I really know well. Like if I make a mistake I don't feel like… oh, really guilty about it if it's someone I know because they'd just make a joke out of it, whereas if it's someone I don't know that hasn't been at social I'd just be like, 'sorry'.* (Male, 21, badminton)

Moreover, the desires for cohesion and team bonding provided a purpose for intoxication and, as such, alcohol use could be more positively viewed when framed as a sport group-related goal:

> *I think it actually gives a meaning to going out and getting drunk, at least you're bonding with a team rather than just… aimlessly.* (Female, 19, volleyball)

In describing sport-related drinking, one extract captured explicitly how participants viewed socialisation as imperative to the success of the sports group, in terms of their experiences of their interactions when playing sports (e.g., training), and with sustaining and growing group membership. Significantly, this element of group interaction enabled the transmission of group norms:

> *To make the society as successful as possible, the social aspect is probably the biggest part of it. If you don't have people who go who, not necessarily get on, but if you don't talk, if you don't socialise then… it's hard to gel as well as you possibly could. Like, we have a lot of people who turn up to training, if it hadn't been for the socials… then it wouldn't be half as fun as it would be. [pause] But then it also gives the society a chance to grow. So once other people see 'oh this is what you can do if you go here', then it sort of filters out and people sort of get an idea of what goes on. And we try to portray it in as positive a manner as possible, I mean we don't go out and do stupid stuff. But I certainly think that adds to the university experience. I think if you've not been a part of a sports society, or a group where you do something like that in a university then I don't think you've experienced everything.* (Male, 25, badminton)

Further to this, participants described drinking occasions as an opportunity to display a "fun" and cohesive group environment used to coax new members to join their sports club. One participant, in particular, expressed his perception of a two-way relationship between socials and sports, and its importance for developing and growing the group:

> *We've had a few people that are friends with someone who plays squash who come to the socials and liked it, [and] turns up to training. Now they've actually been brought into the sport through [the socials]. Which you usually think they'd be brought into drinking through the sport, by playing the sport and being dragged to socials. But actually it's the other way around. It increases club numbers and attendance and things, definitely.* (Male, 19, squash)

When probed about the link between sports participation and drinking, participants alluded to more of a "hand in hand" relationship, and intimated alcohol consumption *per se* did not play a direct role in facilitating sport-related function. However, participants expressed that there were important social qualities and experiences gained from both:

> *I think socials are really important for the football society and the football team in uni[versity]. And alcohol is really important to socials. I don't think it'd be a direct link, but an indirect link would be there*. (Male, 24, football)

The tone of this observation suggests that sport-related drinking had a positive impact on the sports community. However, the pervasive link between sport and alcohol, whether playing or watching, emanated from a few participants:

> *Well, it's also an excuse to get together more often, or… you can tailor it to around sporting events like the six nations or champions league. Y'know, I go down to the pub and watch the game, have a few drinks. Whereas if you weren't actually that interested in sport you wouldn't have that… you'd have to find a different excuse, and sports is quite a ready excuse. It's always available, you'd always find an excuse for any sport to go and drink. I think you would definitely drink more if you were interested in sports, I mean our team definitely does.* (Male, 19, squash)

Interviewer: What are your thoughts about people who play sports, do you think they drink more or less than people that don't play sports?
I think they drink more.
Interviewer: Do you have any reasons why?
I dunno… just perception. You play sport, so you should drink. You should drink excessively.
Interviewer: Why do you think it is?
I'm not sure, I think it just happens. It gets everyone together. I suppose if you don't go out you miss out at training, the first hour and a half is spent talking of going out and stuff. So there's that side of it. (Male, 18, rugby)

Although not all participants recognised sport as symbiotic with excessive alcohol use, the benefits of socialisation with alcohol within their sports group was perceived as an important element for team relations. In essence, this was an important attributing factor in creating a "fun" and positive sporting experience.

6.4 Discussion

The present chapter set out to explore the experiences of sport-related drinking from sports participants' own perspective. By applying a theory-led analysis of the verbatim data, it sought in particular to identify themes that encompassed social identity principles to interpret alcohol use in this context. As such, the analysis served to highlight the group-level processes underpinning sport group membership and alcohol use.

A central observation finds social identity processes anchored within the experiences sport and drinking provide. For example, the analysis highlights how participants' actions, such as making an effort to socialise with the sports groups and to engage with team-related activities, were perceived as important for signifying a commitment to their respective clubs. A key component of social identity is that group members' behaviours are spurred not primarily through social coercion, but rather by an internalised duty to the group as a result of their membership. Similarly, interpretations here suggest that there appears to be a sense of 'obligation' arising from one's group membership that may act as a driver for its participants' drinking behaviours. It is suggested that the extent to which

people feel emotional involvement with their social group (*affective* commitment), will determine how inclined they are to respond to intragroup influences (Ellemers, Kortekaas, & Ouwerkerk, 1999). Moreover, as argued elsewhere, emotions are suggested to play a dynamic role in creating self-categorisation and group-based actions, and for communicating the significance of these actions to others (Livingstone, Spears, Manstead, Bruder, & Shepherd, 2011). As such, sportspeople's involvement with their sports group brings a dynamic interplay between emotional and social perceptions relating to group belonging. Here, the narratives depicted how positive in-group ties led to a more positive appraisal of sport group drinking. In this way, this highlights the need to examine the socio-emotional antecedents of health-related behaviours, in order to understand more fully the drivers and outcomes of health actions.

Furthermore, the social practices described in the current data are consistent with the intragroup-focused social identity research illustrating how small groups may seek creative ways to accentuate in-group ties and homogeneity to order to facilitate a positive social identity (Brewer, 1993; Simon & Pettigrew, 1990). The practice of 'fancy dress', for example, may exemplify an explicit desire to depersonalise its members to be subsumed under a sport group identity. Moreover, the concept of 'calculated hedonism' (Szmigin et al., 2008) is apparent throughout the operation of these activities, where practices are strategically fashioned to facilitate positive group dynamics (Sheehan & Ridge, 2001). Taken together, findings suggest that sport-related drinking may be better understood in terms of the purpose it serves for sport group identity (Clayton & Harris, 2009). By drawing upon insights from the social identity perspective, the current study sought to elucidate the processes that enable such features to arise. Previous quantitative research points to social and team-specific reasons as strong motives for sport-associated alcohol use (O'Brien et al., 2007; Martens et al., 2005; Zhou et al., 2014). Interpretations from the present qualitative exploration further such research by detailing how these social motives behind drinking appear to be

explicitly wedded to sporting success. For example, participants accredited training and game performance to positive social ties with their teammates. Interestingly, this is seemingly divorced from the general medical assertions concerning the ill effects of alcohol use on physical performance (O'Brien & Lyons, 2000).

As such, the present analysis suggests that the cited "indirect link" between sport and alcohol use may be usefully bridged by social identity mechanisms, where inherent motivations to enhance one's identification to their group prompts behavioural and attitudinal responses for group cohesion (Turner et al., 1987). The early definitions of social cohesion refer to it as a force that acts on members to remain in the group (Festinger, 1950). In essence, then, this describes one of the fundamental objectives of social cohesion is the continuity of group life. Hogg (1992) integrated this notion within the social identity framework by describing social cohesion as a condition that facilitates shared and sustained group membership. As such, aspects of cohesion are triggered by self-categorisation and our fundamental motivation to positively enhance, and consequently remain within, our groups. When applied to the context of sport, this necessity to sustain membership carries particular significance for sports attainment, for example, when needing to field a team of fifteen rugby players, or having a number of high-quality swimmers for a race. The added criteria for sporting groups to fulfil specific sport-related purposes may ostensibly act as one of the most primary concerns for taking advantage of environments and practices that facilitate social cohesion and interactions. In this way, the sports context seemingly augments the emergence and utility of social identity mechanisms important for the continuation of sport group life.

However, whilst group considerations may be used to encourage alcohol consumption, the current findings suggest that drinking behaviours were also subject to group monitoring that looked to curtail over-intoxication. Throughout

the narratives, participants spoke of "looking out for each other", and described "sobering up" activities that were part of the groups' practices. Social identity elaborations suggest collective regulation can be a result of self-monitoring of one's own behaviour due to self-categorisation, and an interactive process between group members who hold the ability to uphold, sanction, or correct group behaviours according to group norms (Stott et al., 2001). In this respect, social identity processes appear to be important features that make social monitoring and self-regulating possible.

Similarly, the drinking practices described in the current data are indicative of how such modes of social monitoring are common and well mobilised within this context. For example, rather than permitting over-intoxication, the group can attempt to curb consumption. Consequently, the emergence of such group monitoring features presents a readily available opportunity to harness group-level interactions as an avenue for controlled drinking. This alludes to the utility of group-based management of alcohol consumption as more effective than seeking to reduce individualised intentions for drinking (Armstrong, Watling, Davey, & Darvell, 2013). However, the current findings also provide a cautionary point of drinking in groups, where the perceived security of teammates may be a risk factor for individuals to allow themselves to over-indulge.

One noteworthy contribution of the current analysis is the inclusion of a non-drinking sports participant. Sport researchers have typically focused little attention on non-drinkers (Palmer, 2014). However, exploring their coexistence with drinkers within the social context of sport may expose paths for sport-related health and wellbeing devolved from sport-associated alcohol use. The narratives from a non-drinking participant provided insight to how he navigated his relationships with his teammates, and maintained his sport identity and self-concept. In this particular case, the non-drinking participant suggested that his

leadership status protected him from possible marginalisation by other drinkers. Moreover, he also used his identity and group status to expose non-drinking norms exhibited by "his lot". On a practical level, therefore, the current findings implicate that there may be potential for endorsing light drinkers be placed in positions of leadership or high group status within sport, in order to communicate positive social group qualities that are removed from their actions to do with alcohol.

Critically, however, this may contrast with social identity-based approaches to leadership (Haslam, Reicher & Platow, 2013). Much of the central focus from this perspective is grounded in the importance of a perceived group *prototypicality* of leaders, that is being seen as "one of us" and embodying group norms and attitudes (Hogg, 2001; van Knippenberg & Hogg, 2003). Specifically, high prototypical leaders are liked more (Hogg, 1992) which, in turn, leads to better compliance and group cooperation (Berscheid & Reis, 1998). From this perspective, then, this suggests that sport group members who may not engage in prototypical alcohol-related behaviours may not be efficacious group leaders. However, Haslam & Platow (2001) also suggest that social identity-based leadership endorsement can also be derived from "doing it for us" and demonstrating group-orientated behaviours. When considering the group goals of sports clubs, for example being able to compete successfully, sport group leadership effectiveness may also be contingent on the extent to which the leader is an asset to the pursuit of team goals. As Van Knippenberg and Hogg (2003) point out, leader prototypicality and leader group-orientated behaviours do not necessarily have to happen together. Moreover, the commitment and expression of group-orientated behaviour will impact leadership effectiveness more strongly for low than high prototypical leaders (Platow & van Knippenberg, 2001). This suggests that there is still efficacy in advocating none or light drinkers in positions of leadership within the sports context, as long as their asset lies in successful group-orientated goals, i.e., sporting success.

Consolidating the analysis in general theoretical terms, the present findings suggest that social identity processes occur within sport-related drinking, either through overt practices to enhance in-group perceptions, or intrinsically via group membership commitment. These processes describe how they can mutually determine the relationship between one's sport group membership and sport-related drinking. In essence, social identification and self-categorisation with a sports group provide value and meaning to drinking in this context. Moreover, sports clubs as an interactive group are seen here to operationalise practices that resonate with social identity principles in order to promote intragroup relations. Building upon previous qualitative work, the impetus now centres on how group-level motives within sport, such as group reputation and maintaining positive group experiences, can be harnessed as strategies to reduce over-intoxication, i.e., being a 'good drinker' (de Visser et al., 2013).

In the foregoing discussions, the focus has been mainly concerned with the internal social identity processes arising from group behaviours. However, it is important to consider the external processes that may be concurrently experienced. The expression of group behaviours can also be affected by social constraints that shape whether actions are viewed as acceptable (Klein, Spears & Reicher, 2007). Specifically, what roles the sports community and the institution itself play in shaping the relationship between context, identity and behaviour. For example, the social identity model of deindividuation effects (SIDE; Reicher, Spears, & Postme, 1995; Lea & Spears, 1991) described the emergence of social identity processes enhanced through situational factors such crowd presence and anonymity. With this in mind, the importance of identifiability not only enables intergroup differentiation and in-group action but also affected, implicitly or explicitly, by the social audiences (Klein et al., 2007). In this instance, how alcohol is used is not only recognised as constructive for social interactions but also a strategic expression of group membership (Reicher, 1987; Reicher & Levine, 1994). From this perspective, sports groups may hold a more conservative

pattern of drinking when they are identifiable as the football team, for example, and instil an element of 'policing' in order to redeem positive social identification. As such, there may be an element of accountability from external sources that is enhanced when sport group identity is made salient, which may conflict with alcohol-related norms. The question of how external reactions to sport-related drinking play a role in shaping alcohol use may require the attention of future research.

When considering the more general implications of the study, however, inferences may be constrained to the current cohort, which consists of participants from the same UK university with similar ethnic background. As a result, the cultural and geographical homogeneity may be an unexplored factor in the construction and management of sport-associated drinking in this particular instance (Palmer, 2014). Moreover, universities have been considered as distinctive drinking contexts with students traditionally viewed as hailing from affluent, middle-class backgrounds (Archer, Hutchings, & Ross, 2005). This socioeconomic egocentricity of the population poses its own limitations.

6.5 Summary

Adopting a social identity perspective, this chapter explored participants' experiences with sport participation and alcohol use in order to explicate the group-level mechanisms underpinning sport-related drinking. In sum, the analysis substantiated the occurrence of social identity processes and, importantly, revealed how these processes were actively operationalised through sportspeople's drinking practices. Participants described their alcohol behaviours as socially framed and infused with contextual objectives (e.g., better team cohesion means better sporting outcomes) that provided a purpose for drinking. What this suggests is that alcohol use in the current context is a functional practice, which serves to enhance social and sporting experiences. However, the analysis also intimates how group-level processes espouse ways in which alcohol

management may be mobilised. Thus, the findings of this chapter have made explicit connections between sport group membership and social identity mechanisms influencing sportspeople's drinking. Moreover, it embellishes the previous chapters' findings, by elucidating how increased social identification may result from drinking among sports participants. In essence, alcohol use was utilised strategically to enhance group cohesion and identification, in pursuit of a more positive and successful sporting experience.

Traditional models of health behaviours typically emphasise individual-level factors, such as judgements, beliefs and expectations, in determining engagement in behaviours such as alcohol consumption (e.g., Conner & Armitage, 1998; Ajzen, 1991; Cooper et al., 1988). However, alcohol use in this study was found to be, in part, driven by motives relating to group dynamics and social functioning. The present analysis underscores how sports groups are able to define, shape and regulate its members' behaviours. By doing so, it provides evidence of the instrumentality of identity-related processes particularly useful in this context.

7 'One of us, none for them' – Effects of Intoxication on Group Bias

The thesis, up to this point, has provided a retrospective analysis of sportspeople's identities and alcohol-related behaviours. The previous chapter provided qualitative descriptions of how social and drinking practices among the sports cohort shaped and defined by social identity processes. Further, quantitative findings outlined in Chapter 5 found consumption at Time 1 predicted increased sports group identification at Time 2. This final chapter, therefore, presents an experimental study investigating the direct effects of alcohol consumption on group bias among sports and non-sports participants. In doing so, it also addresses a more general question of how intoxication interacts with social identity processes to effect behaviour. To this end, it rounds off the thesis inquiry by examining the relationship between alcohol and social identity from a psychopharmacological viewpoint, in order to understand how intoxication interacts with the socio-cognitive and behavioural responses related to social identity processes.

As outlined previously in Chapter 2, one of the most established findings in social psychological literature highlights how configuring individuals into groups can enhance feelings of identity, belonging, and self-esteem through actions that favour one's own group, and discriminate against those who are not (Tajfel, 1982). Classic studies indicate that even seemingly trivial or randomly determined group categories (e.g., artist preference, a coin flip) can result in distinctive socially directed behaviour (see Diehl, 1990, and Chapter 2 for an overview of the related literature). Developed into a general hypothesis of social processes and group behaviour, social identity (Tajfel & Turner, 1979) and self-categorisation theory (Turner et al., 1987) propose that group members are

inherently orientated to enhance their social identities through opportunities to distinguish positively their own group when compared to other groups (Oakes & Turner, 1980).

At the same time, the 'social lubrication' (Monahan & Lannutti, 2000; Sayette et al., 2012) function of alcohol consumption on social interactions and interpersonal bonding have been well-documented (Douglas, 1987; Heath, 1976). A ubiquitous notion is that alcohol consumption is often driven by, and shaped through, social processes (Wilson, 2005). However, when considering that alcohol consumption is typically observed within social group settings (Heath, 1976; Frings et al, 2008) it is, therefore, noteworthy that there has been no research to date examining the effects of intoxication on the social and psychology processes underpinning group behaviour highlighted within the social identity traditions.

The implicit awareness of the effects of alcohol on social interactions is observable across a range of domains, and its implications have both positive and negative significance. For example, alcohol settings are utilised to develop relationships within business interactions, functioning as a strategic backdrop for cooperative or negotiator discussion (Schweitzer & Kerr, 2000). During new social group formation, drinking is shown to facilitate group bonding (Kirchner, Sayette, Cohn, Moreland, & Levine, 2006), with Sayette et al. (2012) finding that alcohol consumption enhanced positive group-level behaviour, such as smiling and expressive speech patterns. Moreover, when framed within a social drinking context, Lo Monaco and colleagues (2011) found that people evaluated individuals belonging to an in-group more favourably.

On the other hand, there is also an expanse of research identifying the contribution of alcohol consumption to interpersonal violence and aggression (Graham et al., 1998; Goodman et al., 1986). Whilst not being the focus of their study, qualitative descriptions provided in Stott et al. (2007) mention drinking

behaviours of English football fans in terms of in-group characteristics, and its contribution to how other groups (e.g., police, French/Croatian fans) respond to such "heavy drinking boisterousness" that can escalate intergroup conflict (Stott, Adang, Livingstone, & Schreiber, 2007, p. 36). With recent work suggesting that alcohol-fuelled violence can be better understood at a group-level (Levine et al., 2012), identifying the theoretical underpinnings between intoxication and socially directed behaviour has real-world implications for managing alcohol environments.

Thus, the current work seeks to build on research that has begun to document the impacts of alcohol on group processes. Adopting a prisoner's dilemma paradigm, Hopthrow and colleagues (2007) found that groups of drinkers were more inclined to favour their own group interests (opting for an immediate payout) and were significantly less cooperative with other groups, compared to those in the placebo condition, and individual drinkers. The results of this study are consistent with the idea that when people consume alcohol in groups, group-level processes may dominate attention (Frings et al., 2008; Hopthrow et al., 2007; Steele & Josephs, 1990). Therefore, it is reasonable to suggest that intoxication may exaggerate people's fundamental motivations for increasing in-group distinctiveness (Brewer, 1979). From a social identity perspective (Hogg & Abrams, 1988), a plausible hypothesis is that the documented feelings of social connectedness associated with alcohol consumption within groups may be, in part, due to our inherent desire to think and act in a positively distinct way towards in-group members over others (Hewstone, Rubin, & Willis, 2002; Turner et al., 1979). Illustrating that alcohol consumption can affect these social and cognitive processes highlights the possibility of a mutually reinforcing interaction between social identities and alcohol use, and may provide a theoretical step towards understanding how social identification influences alcohol use (Griffin et al., 2009), and *vice versa.*

Sportspeople typically report a strong identification with their sporting group, and this team connectedness is cited as important for both sporting and social reasons (Clayton & Harris, 2008; Miller, 2009). It is unsurprising, therefore, that social identity processes are instrumental in fostering the drinking practices and behaviours found within this context (see Chapter 6 results). However, in terms of applying a social identity perspective to sport-related drinking, there may be importance in determining whether a sport group membership is uniquely susceptible to such processes. Purposefully, then, the comparison of sports group behaviours against non-sports group members in the present study is significant for two reasons. First, it is theorised that the effects of alcohol consumption on group bias will be augmented in the responses of highly identifying natural social groups. Thus, sportspeople may be more likely to exhibit in-group favouritism due to their salient sport identity, in comparison to a (hypothetically) less identifying group (undergraduate coursemates). Second, if intoxication is found to exaggerate in-group bias in these naturally occurring groups, it adds theoretical foundation to the question of how intoxication may foster social identification among sports participants (see Chapter 5 results).

7.1.1 The Current Study

The aim of the current study was to explore experimentally the effects of alcohol intoxication on in-group bias. A replication of the Tajfel matrices was used as an explicit behavioural measure of group differentiation (Tajfel et al., 1971; Turner et al., 1979; Bourhis, Sachdev, & Gagnon, 1994). It was hypothesised that intoxicated individuals would be more likely to demonstrate group differentiation, in the form of in-group favouritism. A secondary hypothesis was that sports participants would be more likely to exhibit stronger intentions for group differentiation, as a by-product of their highly defined and salient affiliation to a sports team. Therefore, the analyses involved (a) the effect of alcohol or placebo drink conditions on group bias, (b) the difference between

sports participants and non-sporting samples, and (c) the interaction between groups/conditions as a function of social identification.

7.2 Methods

7.2.1 Participants

Ethical guidelines detailed alcohol administration to human participants in line with recommended practice (NIAAA, 2004), and institutional approval was obtained. Recruitment produced 120 participants for the study. For health and safety purposes, the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993) screened for participants' alcohol behaviours. The process excluded respondents with extreme scores of 20 or more (indicating a clinical dependency score of problematic drinking; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) and less than 3 (indicating non-regular drinkers). Female participants confirmed that they were not pregnant (with pregnancy tests provided). All participants completed a medical questionnaire that identified contraindications for alcohol consumption and medications known to react negatively with alcohol that would warrant medical exclusion (see Appendix E).

Following medical screening protocol, 95 participants (91.6% white British) participated in the experiment (40 male, 55 female) ranged between 18 and 32 years of age (mean age = 20.17, $SD = 2.23$). Among the total cohort, 40 were individuals who indicated currently participating in sport and belonging to a sports club. Fifty-five were non-sport participants (hereafter named the 'general' group).

7.2.2 Design and Materials

During recruitment and throughout the experiment, there was no mention of the group-based interests of the research to ensure that participants were unaware of the possible differentiation strategies within the matrices. Instead, the study aims informed participants that the experiment sought to

explore the effects of alcohol on economic-related decision making in order to explain the use of the allocation matrices.

The study implemented a two (Group: sports, general) by two (Drink: alcohol, placebo) between-participants design. Random allocation assigned 21 sports participants to the alcohol condition (placebo = 19). The same procedure assigned 27 general participants (non-sporting individuals) to the alcohol condition (placebo = 28).

In the *alcohol* condition, the mixture was calculated at vodka 37.5% ABV at 0.6 g/kg for males and 0.5 g/kg for females, mixed with equal parts orange juice and tonic water (replication of Rose & Grunsell, 2008; Hopthrow et al., 2007). This measurement of alcohol allows for intoxication at the maximum level of .08% Blood Alcohol Concentration (BAC) – the UK drink-and-drive limit. In the *placebo* condition, a mixture of orange juice, tonic water and 2ml of surface vodka was given; additionally, a vodka 'mist' was sprayed across the glass to support the pretence. Prior to the drink consumption, all participants ingested a strong mint lozenge ('Fisherman's Friend') in order to disguise the flavour of the drinks (methodological replication of Fillmore & Weafer, 2004; Frings et al., 2008; Hopthrow et al., 2007). The amount of liquid was divided into two drinks of equal quantities, and participants instructed to consume each drink across a spacing of 3-4 minutes help ensure a consistent drinking pace across all participants.

The task booklet presented to participants contained a series of allocation matrices (see Appendix G). Each matrix consisted of 13 boxes containing pairs of numbers, displaying the choices of possible payoffs. The receiver of the payoffs, identified only by their group membership, was either an in-group member ('a fellow teammate/coursemate') or an out-group member ('a member from another institution'; group-to-row position was counterbalanced). On each matrix, participants chose a distribution pairing that best determined how they wished to

allocate the monetary payoffs. Hence, the choices provided a situation where moving from one end of the matrix to the other offered a range of strategies that required participants to make a decision as to what extent they wished to maximise and compromise on allocation amounts. Each distribution matrix compared the relative strength of contrary allocation goals as described and defined by Tajfel and colleagues:

FAV	in-group favouritism which reflects both max in-group profit and max group difference
MJP	maximising joint profit which represent max total combined points for both groups
MD	maximising group difference in favour of in-group
MIP	awards the highest number available for the in-group
P	fairness (parity) awards equal amount of points to each group i.e. numerically equal

The Tajfel matrices provide matrix types designed to measure the strength, or 'pull', of the aforementioned strategies. The matrices explicitly measured the motivations for each strategy by pitting them against another in the following format:

(a) In-group Favouritism (FAV = MD + MIP) against maximum joint profit (MJP), and vice versa
(b) Maximising Difference in favour of in-group (MD) against Maximum In-group Profit (MIP), and vice versa
(c) Parity (P) against In-group Favouritism (FAV), and vice versa

Additionally, a measure of direct in/out-group favouritism was included: (d) Direct FAV, in the form of a matrix providing a range that either moved from out-group favouritism, through to parity, through to in-group favouritism (Moghaddam & Stringer, 1986). Each matrix type was presented twice using the same number sequencing as Turner et al. (1979), and as exampled by Bourhis et al. (1994), with their order randomised. Thus, in total, each participant completed 14 matrices in total.

7.2.3 Procedure

Recruited respondents completed a medical screening to determine their eligibility for the study. Once confirmed, participants were requested to abstain from drinking for 12 hours, and refrain from eating for three hours, prior to attending their designated session. Due to the consumption requirements,

participants were also required to consent to not drive or exercise following study participation. Upon arrival, participants completed consent forms and demographics questionnaire, and were weighed (kg). Using the Lion SD400 Alcometer, participants provided a breathalyser reading using to check for baseline Breath Alcohol Concentration (BrAC) and confirm none had consumed alcohol before the study (all study participants scored 0).

Following this, participants completed a questionnaire containing items asking them to confirm their group membership. The sports group were asked to indicate the sport they played, and the sports club to which they belonged. The general student group were asked to identify the degree/course in which they were currently enroled. *Social identification* was assessed across three items using a seven-point Likert scale (1=strongly disagree, to 7=strongly agree): "I have a lot in common with other members of my sports club/course", "I feel strong ties to other members of my sports club/course", and "In general, being a sportsperson/student is an important part of my self-image" (Cameron, 2004). The three items were averaged to provide a single index of social identification (Cronbach's $\alpha = .72$).

The consumption phase lasted approximately 10 minutes. During the subsequent absorption phase, participants watched a comedy show for 20 minutes. The drinking and absorption phases lasted approximately 30 minutes, followed by another breathalysation to check for alcohol intoxication. The results of these readings were purposely masked from the participants across all the conditions to uphold the placebo condition, and so that none knew their BrAC levels prior to the commencement of the task.

The task, framed as an economic-related exercise, gave the participants responsibility for apportioning a hypothetical budget fund. Participants were instructed to use the matrices to divide funding points between two individuals, only identified by their designation as a fellow sports team member/coursemate,

or someone from an external institution. The amounts, represented as points within the matrices, required participants to convert the points into monetary terms, whereby one point was valued at £10. Thus, instead of distributing one and seven points, for example, the 'real' amounts were £10 and £70[9]. Instructions also stressed that these allocations would be anonymous, and participants could not award points to themselves. After completing the booklets, participants were asked provide a *subjective intoxication* rating via the scale (1=not at all, to 10=extremely), "how intoxicated do you feel right now?" in order to check for drink condition manipulation.

On completion of the experiment, participants were given a full debrief of the true nature of the study and compensated for their hour session (£6/2 undergraduate course credits). In line with standard practice (NIAA, 2014), those in the alcohol condition only left once breathalysed and scored a BrAC was below .14 (converted to a BAC level of 0.028%). Entertainment and refreshments were on hand while the participants waited for their BrAC to fall, or disclaimers (see Appendix H) signed if participants wished to remove themselves from the study area before they had reached this recommended level.

7.2.4 Task analysis

Each matrix choice was scored in terms of ranks from zero to 12; the 'pull' of one strategy will receive the highest, with the alternative strategy receiving the lowest score (Bourhis et al., 1994; Tajfel & Turner, 1979). When presented in reverse order, the matrix score calculations ranged between -12 to zero. Therefore, each strategy score (excluding Direct FAV) had a theoretical range of -12 to 12 where zero represented parity (equal distribution), positive scores

[9] This methodological step was included in order to address previous concerns of using points allocations for distribution versus monetary amounts (Gaertner & Insko, 2001). Specifically, it has been argued that allocations represented by arbitrary points are relatively valued only against quantity possessed by either group (Rabbie & Schot, 1990; Rabbie, Schot, & Visser, 1989). However, the distribution of money represents absolute terms where its value does not depreciate in relation to evaluative choices. In an effort to address these methodological aspects, both representations were involved during the present task and therefore reasoned to been considered during decision-making.

represent a greater exhibition of the strategy, and negative scores representing a greater intent to avoid the strategy. For matrix type (d) Direct FAV, the intent was to directly measure in-/out-group favouritism without the presence of a competing strategy, i.e., it was impossible to maximise joint profits (Moghaddam & Stringer, 1986). Therefore, choices on this matrix were scored from zero to 12, where zero represented extreme out-group favouritism and 12 represented extreme in-group favouritism, with parity scored at six. Responses from this matrix were analysed separately.

7.3 Results

SPSS was utilised to conduct all data analyses. BrAC readings confirmed no detectable intoxication levels among those in the placebo condition. Analysis found no BrAC differences between gender and group for those under the alcohol condition. Independent samples *t*-tests were performed in order to confirm differences between conditions. Those in the alcohol condition (M = 5.19, SD = 1.94) scored themselves significantly more intoxicated than the placebo group (M = 2.00, SD = 1.89), $t(93) = 8.11$, $p < .001$, $d = .64$. Additionally, the sports participants (M = 6.04, SD = .80) scored significantly higher on the social identity measure than the general cohort (M = 5.30, SD = 1.04), $t(90) = 3.70$, $p < .001$, $d = .78$. Analysis found no significant gender differences. All further analyses were conducted with bootstrapping to fit significant models onto 10,000-sampled population in order to compute confidence intervals (95% bias-corrected) to adjust for non-normal distributions within the dependent measures (Efron & Tibshirani, 1994; Preacher & Hayes, 2004).

7.3.1 Strategy analyses within each treatment condition

A within treatment analysis of the strategies determined if the 'pull' score obtained from participants within each condition were significantly different from 0 on the theoretical range of -12 to 12. In other words, the analysis determined whether the participant adopted a strategy that pulled them away

from fairness (score of 0; Bourhis et al., 1994). A Wilcoxon matched pairs test analysed differences across the matrix types (see Table 7.1). The pull of parity (P on FAV) was statistically significant across all groups, with the pull of fairness over in-group favouritism observed to be the greatest difference. However, there was also a significant pull of favouritism across all groups when faced against maximum joint profit. This suggests that when faced with the choice of distributing in an equal manner or a differentiating manner, most participants tended to opt for fairness.

7.3.2 Strategy analyses between each treatment condition

A 2 (Group: sport, general) x 2 (Drink: alcohol, placebo) MANOVA was conducted with the six allocation strategies as multiple dependent measures (Bourhis et al., 1994). There was a main effect of group (see Table 7.1) across in-group favouritism strategies of FAV on MJP, and MD on MIP. The sports group were more likely to utilise strategies that favoured maximum in-group amounts which also provided a maximum difference, compared to the general cohort, $F(1,90) = 4.70$, $p = .033$, $\eta\rho^2 = .05$. The sports group also opted for strategies that emphasised maximum group differences over maximising in-group profit, $F(1,90) = 4.12$, $p = .044$, $\eta\rho^2 = .04$. Only a trend main effect of condition was found on strategies of P on FAV, where those in the alcohol group were less inclined to be pulled towards parity compared to the placebo group, $F(1,90 = 3.76$, $p = .056$, $\eta\rho^2 = .04$. Finally, a 2 (Group: sport, general) x 2 (Drink: alcohol, placebo) ANOVA was conducted with the separate matrix measuring direct favouritism (Direct FAV). Analyses found no significant main or interaction effects.

Table 7.1. Means pull scores of subject's matrix strategies as a function of condition (placebo vs. alcohol) and group (general vs. sport participants).

Allocation strategy	Conditions			
	General	Sports	Placebo	Alcohol
FAV on MJP	1.92 (3.12)*	3.56 (3.92)**,[a]	2.30 (3.07)**	2.92 (3.98)**
MJP on FAV	.32 (1.57)	-.14 (1.80)	.13 (2.07)	.13 (1.20)
MD on MIP	1.32 (2.76)	2.74 (3.84)*,[a]	1.71 (3.13)	2.11 (3.50)*
MIP on MD	1.17 (3.83)	-.19 (4.15)	.76 (4.85)	.45 (3.01)
FAV on P	1.72 (3.75)**	2.38 (3.89)**	1.86 (2.93)**	2.14 (4.55)**
P on FAV	8.15 (3.51)	8.76 (3.77)	9.07 (3.10)	7.76 (4.00)
Direct FAV[T]	7.98 (1.92)	8.75 (2.01)	8.31 (1.78)	8.30 (2.19)

NOTE: Possible pull scores for each strategy range from -12 to 12. FAV = in-group favouritism; MJP = maximum joint profit; MD = maximum difference; MIP = maximum in-group profit; P = parity.
[T] Separate direct measure of favouritism. Scores range from 0 to 12.
* $p < .01$; ** $p < .001$; Wilcoxon matched-pairs test (two-tailed)
[a] $p < .05$; Two-way MANOVA

Previous research suggests that level of identification with one's in-group may moderate the subsequent behaviours observed in the allocation paradigms (Sidanius, Pratto, & Mitchell, 1994). With this in mind, further analysis added participants' identification scores as an interaction term between conditions. Median split of continuous variables has been criticised by statisticians as inappropriate due to its loss of power (Aiken & West, 1991), therefore regression analysis was preferred in order to include interactions between categorical and continuous variables. However, the risk of type I and type II errors increase over multiple regression analyses. To overcome this, factor analysis was used to reduce the seven dependent strategies.

7.3.3 Factor analysis

Exploratory factor analysis on the seven strategies identified structural factors to reflect in-group favouritism/intergroup bias. Maximum likelihood factor analysis performed with varimax rotation opted for an orthogonal rotation in anticipation of emergent factors (in-group vs. out-group favouritism) to be

uncorrelated. Kaiser-Meyer-Olkin statistic reflected a good sample size adequate for factor analysis (KMO = .76; Hutcheson & Sofroniou, 1999; Kaiser, 1974). Bartlett's test of sphericity indicated that the correlations between items were sufficiently large for exploratory factor analysis, $\chi^2(21) = 205.15$, $p < .001$.

The analysis revealed a two-factor solution, which accounted for 69.51% of the initial variance and 56.92% of the extracted variance. The clustered strategies suggest that the first factor contained four items that measured the pull of in-group favouritism strategies (see Table 7.2). This factor accounted for 48.93% of the initial variance and 44.31% of the extracted variance. The second factor contained two items that measured the pull of overall profit gains (profit maximising), accounting for an additional 20.58% of the initial variance and 12.62% of the extracted variance.

As the two identified factors were theoretically divergent group bias strategies, the Anderson-Rubin method calculated factor scores representing each participant's placement on the factors identified in the extraction (Anderson & Rubin, 1956). Similar to the raw data, screening of these factor scores indicated non-normality, therefore, bootstrapped analyses continued.

Table 7.2. Rotated factor matrix (maximum likelihood) with orthogonal component loading (varimax with Kaiser Normalisation) for seven distribution strategies (N = 94).

	Factor	
	(1) In-group favouritism	(2) Profit maximising
Fav on MJP	**.95**	-.11
Direct FAV	**.84**	-.24
FAV on P	**.80**	.08
P on FAV	**-.65**	-.14
MD on MP	**.59**	-.17
MP on MD	.12	**.66**
MJP on FAV	-.21	**.60**

Note. Values in boldface type indicate the item's primary factor loading.

Table 7.3. Descriptive statistics for extracted factors across groups/conditions.

	Groups Mean (SD)		Conditions Mean (SD)	
	General	Sport	Placebo	Alcohol
In-group Fav (1)	-.15 (.87)	.22 (1.13)	-.08 (.84)	.08 (1.14)
Profit Max (2)	.20 (.95)*	-.27 (1.01)	-.02 (1.22)	.02 (.72)

* $p < .05$

Table 7.3 presents descriptive statistics for the extracted factors. Similar to earlier analysis, a 2 (Group: sport, general) x 2 (Drink: alcohol, placebo) ANOVA found only a significant difference on profit maximising between participant groups. The sports cohort (M = -.27, SD = 1.01) were less likely to engage in allocation distributions that produced overall maximum gains than the general group (M = .20, SD = .95), $F(1,90) = 5.47$, $p = .022$, $\eta\rho^2 = .06$.

7.3.4 Strategy and condition moderated by social identification

In order to create interaction terms, participants' social identification scores were mean centred before multiplying with dummy coded groups (control = 0, sports = 1; placebo = 0, alcohol = 1). Step 1 added the main effects (group, condition), followed by interaction terms in Step 2. A regression model was computed for each extracted factor (see Table 7.4).

A significant regression model was found for in-group favouritism, $F(4,87) = 3.33$, $p = .014$, $R^2 = 13.3\%$. There was an interaction effect on in-group favouritism between condition and identity, $b = .48$, $p = .013$, CI [.15, .98], which added a significant R^2 change of 10.6%, $F(2,87) = 5.33$, $p = .007$ (see Figure 7.1). Simple main effects analysis revealed that in the alcohol condition, those with higher identification increased in-group favouring behaviour. However, intoxication among low identifiers significantly reduced in-group favouritism

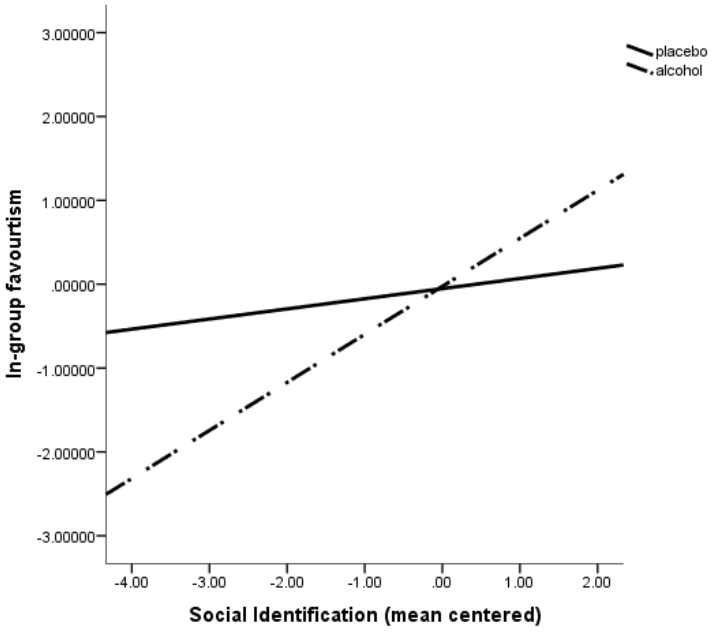
responses ($b = .57$, $p < .001$). There was no significant effect of identification in the placebo condition ($b = .12$, $p = .308$). Analysis revealed a non-significant regression model for profit maximisation.

Table 7.4. Regression models for two factors defined by EFA.

	In-group favouritism		Profit maximising	
	B	SE	*B*	SE
Step 1:				
Group	.30	.21	-.51*	.21
Condition	.08	.19	.03	.20
Step 2:				
Group	.00	.21	-.47	.26
Condition	.02	.18	.05	.19
Condition x ID	.48	.19*	.14	.16
Group x ID	.20	.20	-.23	.29

* $p < .01$. Note: ID = Social Identification score (mean centred).

Figure 7.1. Interaction between social identification and alcohol/placebo condition.



7.4 Discussion

The current study implemented an experimental design in order to examine the effects of alcohol consumption on in-group bias. The results indicate an effect of intoxication on in-group favouritism moderated by social identification. High identifiers were significantly more likely to engage in distribution strategies that favour their in-group members whilst intoxicated, while low identifiers were significantly less likely to exhibit in-group favouritism under the same condition. Simple main effects analysis revealed no effect within the placebo condition. Previous research suggests that alcohol consumption can increase perceptions of group relations (Kirchner, et al. 2006, Sayette et al., 2012). To date, however, this study is the first to investigate systematically the link between social identification and social behaviour following consumption. Findings suggest that, when intoxicated, highly identified individuals may be more likely to exhibit behaviours that favour their own group. Resultantly, the present study may provide insight to how the psychopharmacological effects of alcohol may prompt self-categorised individuals to become attuned, or perhaps more susceptible, to processes seeking to positively distinguish their group memberships.

As predicted, the sports cohort reported significantly higher level of social identification than the comparison ('general') group. Analyses of the seven different strategies revealed that sports group members were more likely to exhibit greater 'pulls' towards in-group favouritism strategies; significantly so when provided the opportunity to maximise group difference in sacrifice of in-group profit, and when favouring their own group to forgo absolute profit making. In-line with social identity research, the present data reflect the notion that group categories carrying greater value in terms of identification are more likely to result in responses which enhance positive group distinctiveness through group differentiation (Jetten, Spears, & Manstead, 2001; Moghaddam & Stringer, 1986; Tajfel 1978, 1986). In this instance, this was reflected by sports

participants' strategies to maximise distinctiveness, and avoid strategies that allow profits to go to the out-group. Taken together, findings suggest that sports participants may be more likely to pursue positive outcomes related to their sports group (social) identification.

Interpretations of these results, therefore, offer support to existing research that suggests individuals belonging to a defined and important group category, such as sports group affiliation, may be inherently more inclined to feel and act favourably towards fellow group members (Jetten et al., 2001). According to some of the social identity literature, positively distinguishing own group against other groups may provide individuals with a greater sense of in-group belonging and positive self-esteem (Abrams & Hogg, 1988; Hogg & Abrams, 1990; Lemyre & Smith, 1985; Oakes & Turner, 1980). As alcohol exaggerates in-group bias for highly identified individuals, as suggested by the current findings, the present investigation, therefore, seeks to add theoretical understanding to how sport-related drinking may relate to reports of increased psychosocial wellbeing among this subgroup (Zhou et al., 2014; Huang & Humphreys, 2012). Considering that alcohol consumption is found to be group defining in the sports context (Clayton & Harris, 2008; Curry, 1998), current interpretations suggest that the interplay between psychopharmacological effects of alcohol and social identification may be mutually reinforcing.

However, a limiting factor to the interpretations above is that the study did not collect post-test measurement of social identification, nor a measurement of self-esteem. The inclusion of these items may provide explicit measures of changes in social identification and self-esteem, in order to support more fully the applied theoretical inferences of current findings. Another consideration is that group allocation strategies are shown to be dependent on in-group norms. For example, Jetten et al. (1996) found that when fairness was considered an in-group norm, in-group favouring behaviours were significantly reduced. As such,

there may be potential mediating norms that may go some way in explaining in-group bias found in highly identified participants in the present study. Moreover, an interesting development from this notion concerns whether alcohol intoxication affects social identification through in-group bias strategies, or by enhancing the influence of salient norms. In other words, does intoxication accentuates the adherence to group norms? Further still, does engaging in normative and pro in-group behaviours drive continued consumption? Future research may seek to better elucidate the dynamic interaction between alcohol intoxication, group norms and social behaviour.

Furthermore, the present study replicated the Tajfel matrices in order to collect behavioural data on group bias. It is noted, however, that there is a backdrop of controversies surrounding the theoretical underpinnings and interpretation of the matrices (c.f. Diehl, 1990; Mullen, Brown, & Smith, 1992; Rabbie et al., 1989). Nevertheless, these allocation matrices, whilst previously criticised as embodying limiting and confounding responses (Bornstein et al., 1983a, 1983b), arguably provides a design useful for highlighting the impact of the psychopharmacological effects of alcohol. Simply put, when presented with a 'confounding' scenario, intoxication is suggested to impair attentional processes and cause participants to focus and act upon their most salient cues (Steele & Josephs, 1990). In this instance, intoxicated individuals may exhibit an exclusive response for group bias, reflecting, to some extent, how group differentiation cues become more salient when drinking. There is, however, evidence to suggest task and procedural characteristics can affect the quality and magnitude of intergroup bias observed using such a paradigm (Hartstone & Augoustinos, 1995; Hertel & Kerr, 2001; Gaertner & Insko, 2001).

As such, further experimental research should seek to explore the current study aims through a variety of methodologies. Moreover, the current research seeks to add to the growing focus to the effects of alcohol consumption as a

function of social processes. With this in mind, there is scope for further examination of the interaction between alcohol use and social identity processes away from a laboratory-based setting in order to consider interpersonal interactions and the social context (Hopthrow, de Moura, Meleady, Abrams, & Swift, 2014; Monk & Heim, 2013; Sayette et al., 2012). An important aspect to examining group processes as a product of a *group* environment. In this instance, highly identified intoxicated individuals were more like to adopt in in-group favouring strategies. However, decisions are often influenced by social cues (Abrams et al., 2006), and research into the way in which groups act when intoxicated would better elucidate how dynamic social situations and contexts may interact with identity-based processes.

7.5 Summary

This chapter sought to examine experimentally effects of intoxication on group bias. Importantly, the present study explored the hitherto unexamined associated between social identification, alcohol consumption and social behaviours. The present research findings proffer a number of novel insights. Namely, the analysis found alcohol to exaggerate in-group favouring behaviours exhibited by high identifiers. These findings suggest an interaction between the psychopharmacological state of intoxication and social group perceptions, and present an added dimension towards understanding group drinking. Moreover, it builds on the momentum of the previous thesis chapters by presenting behavioural data to indicate how alcohol behaviours among sports participants may mutually determine both identity and alcohol-related outcomes. Taken together, findings suggest how intoxication and social psychological processes combine, and may lead us to be particularly vulnerable to group influences within alcohol environments. The implications of current and future research may be particularly central for understanding alcohol-related behaviours observed among identity-charged groups found within the sport environment, and beyond.

8 Overall Discussion and Conclusions

8.1 Summary of findings

This thesis has applied a social identity perspective to investigate student sportspeople's drinking across four empirical studies. The thrust of this research derived from (a) the need to better elucidate the mechanisms underpinning drinking behaviours in this context, and (b) the emergence of an applied social identity approach to health. Chapter 2 examined caveats in the current alcohol and sport literature, and in doing so presented the social identity perspective as an appropriate theoretical framework to understand better the sport-alcohol relationship. From this, it was argued that a consideration of wellbeing, and its relation to social identification and alcohol behaviours, provides a more balanced perspective to move away from the 'problem-focused' approach that is unlikely to provide a full picture. By framing drinking among this high-risk subgroup as an identity-related process, it considers to a greater extent the social context and identity value of alcohol use for sports participants. Moreover, from this perspective, it presents a wealth of theoretical principles and empirical research to explain and understand better sport-related drinking. Thus, the aim of the thesis was to adopt a social identity approach to examine sportspeople's alcohol use and, by doing so, present its applied utility.

The first empirical study (Chapter 4) utilised secondary data analysis to examine the relationship between athletic identification, happiness, and alcohol consumption in sport. Questionnaires gathered data from a large and geographically varied sample of UK sports participants. Results revealed that identification with the athletic role interacted with sport-type to predict sports participants' alcohol consumption. Specifically, for individual sports players, as athlete identity increased, consumption significantly reduced. Thus, it seems the case that sport-specific identities can play an important role in shaping alcohol

behaviours in this subgroup, and a noteworthy avenue to explore with regard to drink-reducing strategies.

A second survey study further examined the role of sport-specific identities in alcohol-related behaviours (Chapter 5). The analysis assessed longitudinal data to elucidate the associations between sport-related identities, wellbeing, drinking motives and consumption, in the pursuit of directional interpretations. Moreover, the investigation developed a dual examination of participants' personal athletic identity concurrently alongside their social sport group identity in order to explore sport-specific identity determinates of alcohol behaviours. Cross-sectional analysis identified that positive sport-related drinking motives fully mediated the relationship between social identification and consumption at Time 1. This suggests that sports group identification engenders motives for drinking that perceives alcohol use as a positive and rewarding activity relating to their sporting activity. Longitudinal analysis indicated alcohol consumption associated with increased rates of social identification over time. However, a reverse path analysis found no inverse relationship. Findings, therefore, point to alcohol use in this context as an avenue for building social identification and, importantly, this identification is positively linked to sportspeople's general wellbeing. Moreover, this second study presents a novel insight regarding the significance of identity-levels – subordinate (person) versus intermediate (group) identities – in that alcohol consumption was positively related to sport group identification, but not with athletic identification. Resultantly, the findings point to the dual utility of sport-related identity, on both a personal and social level, in order to address health-related behaviours and outcomes for its participants.

The qualitative study presented in Chapter 6 examined the experiences associated with sports participation and alcohol use from respondents' own perspective. Theory-led thematic analysis guided interpretations of the verbatim

data and identified a structure of themes corresponding to the core constructs of social identity. Principally, analyses indicated that drinking behaviours exhibited among student sportspeople were strategic activities constructed to serve social and psychological functions at the group-level. Respondents' narratives illuminated social identity mechanisms for intragroup monitoring and sport group functioning. Interpretations here suggest how social identity processes in this subgroup can propagate consumption. Additionally, narratives indicate that those involved in sports can harness these processes alongside drinking itself in order to help orientate the group towards social cohesion and positive in-group relations.

The final empirical study in Chapter 7 assessed the interplay between the psychopharmacological effects of alcohol and social identity processes. The study employed the Tajfel matrices to examine the effects of intoxication on social behaviour, and compared sporting and non-sporting participants. Results indicate that participants' level of identification moderated the effects of intoxication on in-group favouritism. High identifiers were significantly more likely to demonstrate strategies that favoured the in-group when intoxicated, whilst low identifiers were more likely to avoid in-group favouritism. However, those in the placebo condition demonstrated no significant changes in distribution behaviours. These findings indicated that intoxication may magnify social identity processes and, for the first time, proffers insight into the interaction of intoxication on social identities mechanisms. Sports participants reported stronger social identification and were more likely to exhibit discriminatory behaviour compared to their non-sporting peers. As such, findings suggest that for highly identified natural groups, such as sports teams, intoxication can exaggerate social identity processes. It, therefore, brings to light how drinking in groups may facilitate the in-group ties that are so highly regarded within sport.

8.2 Theoretical contributions

Taken together, the empirical studies presented in this thesis point to a mutual interplay between sport group membership and the drinking environment to perpetuate alcohol use in this context. The instrumental role of social identity principles is suggested to be particularly germane within the milieu of sports involvement, demonstrated by its significant influence emerging within all four studies. As such, this thesis is one of the first uses of social identity-based research to describe and understand alcohol behaviours among a non-clinical high-risk subgroup (see also Livingstone et al., 2015; Neighbors et al., 2010; Reed et al., 2007). The clinical applications of the social identity perspective have brought to light the need to consider people's social ties and identities to afford a better understanding of the mechanisms underpinning substance use and cessation (e.g., Best et al., 2014; Dingle et al., 2014; Frings & Albery, 2015). In a similar fashion, this thesis adopted a social identity approach to understand how identities operate in the context of alcohol (mis)use in sport. In particular, it has delineated some of the dimensions involved in these processes, by highlighting how sport-specific identities may frame alcohol use with regard to its function and value for his/her sports involvement and how alcohol consumption itself can interact with these processes.

From this perspective, it therefore adds social psychological insights to contemporary alcohol research that suggests drinking practices can be better understood in terms of the functional values it has for shared drinking experiences (de Visser et al., 2013; Fry, 2011; Gordon et al., 2012; Measham, 2004; Szmigen et al., 2008). Applying this concept to the context of sport, the empirical chapters bring to the fore how sport-related drinking contains a functional dimension in the way it is used to promote positive sport and social experiences.

In this way, findings from Chapters 4 and 5 suggest that sport identities positively associate with wellbeing; however, these psychosocial outcomes did not relate directly to alcohol use. Instead, it seems that drinking served to act as a medium to enhance social identification and positive sport experiences. By implication, this thesis recognises that identity processes may not only determine drinking, but also suggests how alcohol consumption can give rise to positive social and psychological experiences, in part, *because* of social identity processes. To this effect, the qualitative data (Chapter 6) illustrated how alcohol use among sportspeople can be best understood in terms of group-level considerations, where (dis)engagement in drinking is determined by the affective significance it holds for the group belonging, portrayed as what 'works for them'. Specifically, respondents described sport-related drinking wedded to sporting success and performance. As such, what these findings underscore is that alcohol is used in pursuit of sport-specific motives for team cohesion and sport attainment. On the surface, therefore, the relationship between sport and alcohol seems contradictory in nature (Wenner & Jackson, 2009). However, and building upon the functional attributional model of substance users (Davies, 1992; Heim, Davies, Cheyne, & Smallwood, 2001) and motivations models of alcohol (Cooper et al., 1995), the thesis suggests that sportspeople conceptualise their consumptive practices as functional behaviours that are conducive for positive and successful sport group life.

As such, linking alcohol behaviours to social identification may provide a conceptual model to accord for how sportspeople may feel good about drinking excessively. As such, it serves to provide a socio-emotional dimension to explain why individuals may act out compromising health behaviours (Oyserman, 2009; Tarrant et al., 2012). The introductory chapters of this thesis have highlighted this paradoxical association between the health promoting features of sports involvement, and the hazardous use of alcohol among its participants. In answer to this, the thesis findings suggest that sport-related identity processes can both

deter alcohol consumption in line with the athletic interest, and sanction drinking as a functional activity to enhance the sporting experience. By recognising the various conceptualisations of identity that a sportsperson may hold because of his/her sport involvement (e.g., Chapter 5), this thesis brings to light how ambivalent health-related behaviours are embroiled with the positive and affective developments garnered from sport group membership.

To highlight explicitly these psychological effects, the first three empirical studies in this thesis found positive psychosocial outcomes (happiness, wellbeing) related to sport identification. As such, it applies similar deductions as Wann's (2006) Team Identification-Social Psychological Health Model, which surmised that psychological identification with a sports team could be utilised as an avenue for improving social and psychological health for sports fans. In line with this, the current thesis findings posit that there may be avenues for promoting wellbeing for those *directly* participating in sport. From this perspective, it suggests the social identity-related self-esteem hypothesis proposed by Abrams and Hogg (1988) may hold some bearing when considering wellbeing as a dependent variable in the current findings. One of the main critiques of the evidence surrounding this elaboration of social identity centres on the *type* of self-esteem that is measured (c.f. Rubin & Hewstone, 1998). As such, the current body of research adopted a measure of general wellbeing in order to distance its interpretations from similar critiques. Importantly, scholars who differentiate the two concepts underscore how one of the most important sources of wellbeing is social affiliation (Diener, 1984; Ryff, 1989; Lyubomirsky, Tkach, DiMatteo, 2006). The current findings extend this position to detail how drinking as a group activity functions to cement social affiliations, a main construct that is suggested to derive a person's sense of happiness (Lyubomirsky et al., 2006).

Recently, empirical research points to the importance of social affiliations and group memberships as a protective feature for health and wellbeing (c.f.

Jetten et al., 2012). A theoretical contribution of the current thesis is the suggestion that social identity principles are a potential psychological resource to aid strategies seeking to minimise alcohol-related harm, that is, referring to practices aimed at reducing harms and problems related to substance use, but not its use *per se* (Marlatt & Witkiewitz, 2002; Ritter & Cameron, 2006). Pragmatically speaking, alcohol use is, and will continue to be, pervasive in everyday social life as a legal psychoactive drug (Measham, 2006). However, steps may be taken to decrease the risk and severity of adverse consequences related to its use (Marlatt & Witkiewitz, 2002). The thesis findings provide insight to the contribution of a social identity framework when considering harm reduction strategies, in that there may be protective features of group membership that can buffer against negative alcohol experiences. Specifically, aspects of drink-related regulation, both on a self and social level, are elucidated in Chapter 6. For example, the sports group engaged in a mutual form of monitoring that allowed its members to stem undesirable over-intoxication. This builds upon previous research that asks the questions as to why greater patterns of heavy drinking among sportspeople are not ubiquitously associated with greater experiences of alcohol-related harms (Grossbard et al., 2009a; Yusko et al., 2008). From this perspective, the thesis findings lend support to the notion that a social identity approach to understanding group drinking may provide novel resources for reducing alcohol harms.

The final study of this thesis (Chapter 7) adds to the emerging body of experimental research investigating how alcohol affects group processes (Abrams, Hopthrow, Hulbert, & Frings, 2006; Frings et al., 2008; Hopthrow et al., 2007). This study placed the psychopharmacological effects of alcohol consumption alongside social identity processes and found that those highly identified with their group were significantly more likely to engage group bias behaviour when intoxicated. As such, this study adds the first look into how the psychopharmacological state of intoxication interacts with social identification to

influence group perceptions, and, subsequently, social behaviours. More broadly, then, the contribution of these findings have implications for future research seeking to manage environments where alcohol consumption and distinctive social groups are both present. For example, examining group dynamics within alcohol-fuelled football crowds (Ostrowsky, 2014), managing conflict within the night-time economy (e.g., Levine, Taylor, & Best, 2011), and to better understand the link between drinking and violence among youth gangs (Hunt & Laidler, 2001).

Cumulatively, what the current thesis is able to show is that sport group membership presents a context where social identity processes are both *independent* and *dependent* variables that relate to alcohol use. Its contributions elucidate how these mechanisms operate to create positive sport and alcohol experiences and, therefore, underline how researchers can look to harness these meaningful and valued processes for effective group-level routes for alcohol harm minimisation.

8.3 Practical implications

As such, interpretations of the thesis findings outline how such social identity principles can operate in tandem to address alcohol behaviours. Specifically, identity-related processes can be a mechanism for interventions into alcohol-related behaviour by viewing group memberships as (a) a valuable psychological resource with the capacity for engendering alcohol-related harm minimisation strategies, and (b) a source of social influence that can determine consumptive practices. By framing behaviours within identity-related mechanisms, the thesis findings outline how drinking can be encouraged, enforced, and amended at the group-level.

Contemporary research has underscored the significance of social groups in creating feelings of self-efficacy relating to substance use (e.g., Buckingham et

al., 2013), and as a buffer against both physical and psychological stressors (e.g., Haslam et al., 2009). Drawing upon these components, it is argued that strategies to tackle alcohol-related harm associated with sport-related drinking may benefit from utilising the positive aspects these networks foster to protect against and minimise negative alcohol-related experiences. This is explicitly exampled in Chapter 6, where narratives of sport-related drinking relayed how the sports group can monitor its members' alcohol use in order to stem over-intoxication. Moreover, it echoes research from crowd psychology and sport fandom that finds social identities powerfully impact upon group behaviour in emergent 'self-regulated' cultures (Stott et al., 2001; Stott et al., 2007; Wann, Melnick, Russell, & Pease, 2001). Thus, although certain groups may encourage or escalate alcohol consumption, far from being unrestrained, it appears that drinking behaviours may be subject to the same identity-based governance.

The practical implications of these findings, therefore, advocate utilising the self-regulating aspects of the sports group as an opportunity to reduce adverse alcohol outcomes. This may be in terms of utilising protective strategies to minimise alcohol-related harms (for example, monitoring over-intoxication), or 'policing' its members' behaviours through enforceable sport-related sanctions (for example, not playing the next match). In this way, the authority of the sports group to shape consumptive patterns suggests that drink-management strategies and messages that are delivered by the group itself would arguably be more effective, and adhered to, than external campaigns such as institutional control policies or deterrence strategies. From this perspective, the application of the thesis findings suggests a path for harnessing 'groupy behaviour' (Hogg & Terry, 2000), by evoking the power of the sports group to increase the success of drink-related interventions.

Furthermore, the findings from Chapters 4 and 5 outline how identification with the athletic role may be protective against alcohol use. This

may be due to its identity-content centralising on sports performance and one's ability to fulfil their sporting role (e.g., "I feel bad when I do poorly in sport"). This subordinate level identity may, therefore, form an advantageous identity-based strategy to reduce consumption through making salient the values of an athletic identity. Priming and operating an 'identity shift' (Berger & Rand, 2008) draws upon social identity and self-categorisation processes that orientate individuals towards identity-congruent behaviours (Tarrant et al., 2012). What this thesis unpacks is that relationship between sport group membership and its participants' health behaviours is multi-faceted.

This brings to the fore the metatheoretical considerations of the 'many faces' of our social identities, and how, when and which identity takes precedence (Brewer, 2001). By examining the variety of sport-specific identities assimilated during sports involvement, the thesis sought to elucidate what identity-based drivers may be useful in determining healthier alcohol use. Specifically, it suggests harnessing a personal athletic identity to empower identity-related content related to sports performance can go some way in deterring alcohol use. Concurrently, sport group membership can be utilised as a

Figure 8.1. Examples of drink-reducing strategies supported by thesis findings.

- *Implement identity-based health and 'safer drinking' awareness*
- *Utilise sport-specific penalties to encourage sport group regulation of consumption.*
- *Priming and making salient an Athlete Identity in alcohol environments.*
- *Encourage socials in non-alcohol environments to remove the function of alcohol in the process of socialisation.*

socio-emotional pathway to engender positive psychosocial wellbeing (Wann, 2006). In sum, the thesis investigation recognises that alcohol behaviours are a function of sport identities and sport group life. It is concluded that drink-reducing strategies (see Figure 8.1 for examples) rest upon understanding, and subsequently harnessing, this group-level and identity-driven nature of drinking in this context.

8.4 Limitations and future direction

This thesis sought to apply a social identity perspective as a novel framework for understanding alcohol behaviours among student sportspeople. It did so by adopting a mixed methods approach, with Chapter 3 presenting the justifications for the use of mixed paradigms. However, it is important to acknowledge and discuss limitations that need to be borne in mind when interpreting its findings.

The purpose across the entirety of this thesis was to gain insight into the group-level processes that operate to influence sportspeople's drinking. However, when examining the context of sport, it is conceivable that some precursory element of self-selection may determine sport group membership. In other words, individuals who have certain qualities may be the ones drawn to organised sport and group activities (Eitle & Eitle, 2002). On an individual level, studies suggest personality factors such as extraversion and sensation seeking are more pronounced among sports participants (Hartman & Rawson, 1992; Schroth, 1995). These traits are shown to be strong predictors of drinking and relate to greater risk-taking behaviour, such as heavy and episodic alcohol consumption (Stacy, Newcomb, & Bentler, 1993; Yusko et al., 2008). Prior research into student drinking proffers the suggestion that those who are intent on drinking heavily may seek out and join a social group that is tolerant of the behaviour (Reed et al., 2007). Considering the act of sports participation, however, one would be reticent to suggest that individuals are motivated to engage in sports

due to its (potential) sanction of alcohol use. However, the fact remains that there may be underlying individual factors that make the sports cohort a unique collective of individuals more likely to exhibit traits associated with risky drinking (Baer, 2002). With this in mind, it would be worthwhile to study individuals who newly enter into sports, and assess the interaction between personality and group-level effects on sport identities and alcohol behaviours (Grossbard et al., 2009a).

In addition, this thesis has adopted a relatively gender-neutral stance to the investigation in sportspeople's alcohol consumption. Indeed, throughout the analyses within the quantitative studies, gender is controlled for as a covariate. Although the intent is not to disregard the topic of gender differences in consumptive practices found in sport, the current investigation sought to shift focus to the more *social* processes that occur in these interactive small groups. However, is it noted that sport and alcohol use have been construed as a highly gendered activity (McKay, Messner, & Sabo, 2000). Involvement in sport, and with alcohol, is exposed as a context where hegemonic masculinity (Connell & Messerschmidt, 2005) can be expressed through participating in these 'masculine endeavours' (Curry, 1998; Fallon & Jome, 2007; Wenner & Jackson, 2009). The *representation* of masculinity within sports has been discussed as a driver to the *enactment* of particular forms of masculinity, with heavy alcohol use as a primary example (Curry, 1998; McKay et al., 2000; Wheaton, 2000; Wilson, 2002). As such, the study of sport-related drinking through the gendered lens of identity expression has prevailed as a core identity-related process underpinning both sports participation and alcohol use (e.g., Fuchs & Le Hénaff, 2014).

However, studies indicate a convergence in the gender gap between male and female sport-related drinking, suggesting that athletic status may be particularly harmful to female sports participants (O'Brien et al., 2008; O'Brien et al., 2014). Cameron and Lalonde (2001) propose that gender-derived social

identification can meaningfully impact people's attitudes and behaviours, through emphasising the *content* of the particular identity. When considering gender differences within sports, the case of male-female categorical distinction may not capture the nuances of gendered ideology and perceptions that may have contradictory, or enforcing, consequences for sport-related drinking (Palmer, 2011). Future research applying a social identity framework in this context may therefore also gain from insights into gender identity and *ideology* interactions as a function and/or consequence of participants' alcohol behaviours.

A documented shortcoming of alcohol research that is relevant to the current thesis is the reliance on retrospective self-reports of consumption (Hufford, Shields, Shiffman, Paty, & Balabanis, 2002). Traditional methods of collecting data on alcohol behaviours involve asking respondents to recall and record their prior alcohol use, typically within varying frames of reference ranging from "the past two weeks" (e.g., Brenner & Swanik, 2007), "in the last 30 days" (e.g., Cadigan et al., 2013), or "over the last 12 months" (e.g., Green et al., 2001; Chapters 4 and 5). Specifically, this brings to light the validity of retrospective alcohol measures, for example asking participants to estimate accurately their drinking patterns across a 12-month period, and the interpretability of drinking rates for comparable research when reference periods are inconsistent. Moreover, a reoccurring consideration applicable not only to this thesis, but to self-report based psychological research in general, is the need to evaluate whether the conditions surrounding the testing period impacts the accuracy and validity of self-reported alcohol-related measures (Del Boca & Noll, 2000; Verster & Tiplady, & McKinney, 2012). For instance, the collection of retrospective consumptive behaviours, and the underlying motives and attributes, are far removed from the context these were originally performed in. This presents a number of issues. First, there are basic aspects of human information processes that affect respondents' ability to describe their past behaviours (Babor, Brown, & Del Boca, 1990). Second, acute impairments of intoxication are

suggested to impact on drinker's cognitive abilities to remember drinking events (Weissenborn & Duka, 2003). Resultantly, retrospective accounts of alcohol-related behaviours may differ significantly from in situ events (Monk, Heim. Qureshi, & Price, 2015). Third, it is argued that these frequency measures cannot capture patterns of drinking (Rehm, 1998). As such, Greenfield (2000) contends for an acute measurement of consumption that describes alcohol use in a more nuanced fashion in order to take into account the temporal factors of drinking.

Relatedly, it is worth also noting the critical issue of capturing social identification using static and context-free psychometric measures, when social identities are thought conceptually to arise depending on context-saliency cues (Turner et al., 1987). In other words, the power of the social context should be recognised as holding a powerful influence in shaping the saliency and distinctiveness of an individual's social identities. As such, social identification measures may be considered a way of gauging an individual's *readiness* to identify with their social group. However, such measures may not be appropriately utilised in order to capture social identities *in vivo*.

In light of these issues, contemporary scholars have discussed the research utility afforded by modern technology, such as mobile short messaging services (Kuntsche & Robert, 2009), and smart-phone applications (Monk et al., 2015), in collecting substantive 'real-time' data on psychological attitudes and behaviours. Drawing upon the strengths of Experience Sampling methodology, such technological advances presents a data collection method where participants are prompted to enter data at the literal 'touch of a button' (Kuntsche & Labhart, 2014). The technological sophistication and ease provided by mobile phone technology presents an opportunity for researchers to gather substantial amounts of data, whilst presenting a popular method among participants that fosters follow-up compliance among repeated measures studies (Kuntsche & Labhart, 2012; see limitations of Chapter 5). Accordingly, it paves the way for more

systematic examinations of behavioural patterns that can aid substantiated and accurate interpretations through convenient, accessible, precise and sustained data compiling (Miller, 2012). The advantages of such technological resources provide a key future direction for research seeking to examine the trajectories and associations between psychosocial aspects of identification, wellbeing and real-time alcohol use throughout the duration of individuals' sporting involvement.

Finally, a key ontological consideration within social psychological research is the dynamic interaction between the individual and the environment, and its impact on thoughts, feelings, and behaviours (Turner et al., 1987). This emphasis is what separated social identity theorists from the individualised focus of social psychological research at the time (Elms, 1975). In this way, the inception of social identity theory illuminated the need to view behaviour in the context of social group memberships (Tajfel, 1982; Turner, 1991), and that such processes arise due to contextual cues, *fit,* and *accessibility* (Turner et al., 1987). However, whilst this *world structure* is considered a guiding tenet of social identity, the current body of work is restrained by limited inference as to how this may emerge and flux as a result of the sport and alcohol environments.

As such, field-based research would widen the scope of this thesis investigation in order to examine social identity processes with both an intra- and inter-group focus. Social identity traditions provide valuable mechanisms for intragroup relations (the main focus and contribution of the thesis), however, these are foremost explored in relation to between group relations and the arousal of social comparisons – the 'us' versus 'them' (Tajfel & Turner, 1979; Hogg & Abrams, 1988). Therefore, social categories are dynamic in context, its guiding formation for behaviour determined by intergroup assessments alongside intragroup influence. For example, field research by Stott and colleagues observed how social identity processes serve to underpin behaviours of English

football supporters, and details how perceptions of out-group social identities can instigate behaviours (Stott & Reicher, 1998; Stott et al., 2007). Based on the Elaborated Social identity Model (ESIM; Reicher, 1996; Drury & Reicher, 2000), group behaviour is suggested to function as a reactive response to social environments. Thus, ESIM suggests that social categories can guide group behaviours, however, that it can also determine, and be determined by, intergroup relations (Stott et al., 2001).

In a similar fashion, it seems relevant to study group drinking on an intergroup level. Therefore, in adopting a social identity perspective, a concurrent facet should also concern the relationship between intergroup processes. A question for future research, then, is *how can interactions with certain groups exacerbate/deter alcohol consumption.* In terms of *reactive distinctiveness* (Spears, Jetten, & Scheepers, 2002), if own group identity is threatened then members may be enacted to restore in-group distinctiveness. The risk here is that if alcohol use is identity-defining (e.g., Livingstone et al., 2011), certain sports groups may adopt more excessive portrayals of alcohol-related behaviours in order to discern their own group distinctiveness. Certainly, however, this may equally result in a reversal reaction, where heavy alcohol use observed by some groups may be a source of derision for others, and result in a dampening of drinking in order to positively distinct between the groups. Although not applied to alcohol use directly, Stott et al. (2001) observed how Scottish football fans intervened when one of their members was involved in an altercation in order to remove themselves from a 'violent' identity, something which they considered were reserved for the English football fans. Such evidence suggests that group behaviours can be a reactive response to group relations within the social climate, and presents an opportunity to further an applied social identity perspective to examine alcohol use in sport.

8.5 Conclusions

An important purpose of the thesis has been to focus a theoretical lens to the sport-alcohol nexus in order to advance the largely atheoretical nature of previous research and elucidate the mechanisms underpinning this counterintuitive, yet prevailing, relationship. By adopting a social identity perspective, the thesis underscores how social identity processes structure sportspeople's alcohol behaviours, and concurrently how drinking practices carry meaning *for* social identities.

The thesis findings, therefore, suggest that identity mechanisms play a formative and purposeful role in student sportspeople's drinking. Sport identities can function to prescribe and proscribes its members' drinking by conveying identity-valued perceptions of alcohol use (e.g., Chapters 4 and 6). At the same time, the research suggests that drinking practices serve to sustain and enhance sport identification, and are wedded to the contextual features of positive and successful sport involvement (e.g., Chapters 5 and 6). Additionally, the thesis presents a psychopharmacological dimension to the consideration of social processes occurring in alcohol environments. By experimentally examining effects of intoxication on social behaviour, findings showed that for high identifiers alcohol consumption heightened acts of in-group favouritism (e.g., Chapter 7). Taken together, the findings intimate to a mutually reinforcing link by which sport group members come to be involved drinking, and how alcohol is used to as key feature for successful sport group life. As such, the thesis exposes the dilemma *vis-à-vis* the best way to address sportspeople's alcohol behaviours when they are entrenched in the psychosocial identity and wellbeing domains of their social and sporting lives.

However, the social identity perspective as a socio-emotional model provides the theoretical foundations to ascribe how positive features associated with behaviour – the *it feels good* factor – are inextricably intertwined within

the social nature of group life. Ultimately, then, if we conceptualise the impact of social influence in social identity terms, it proffers a set of principles that can help us to understand why and how groups can affect our wellbeing, and how they can be utilised to orient towards healthier behaviour (Jetten et al., 2012). Moreover, the recognition of the sport-related functions fulfilled by alcohol use can help direct drink-reducing strategies that are more relevant and appropriate for the sports community. By drawing on the wealth of social identity research and theory, the thesis findings present a number of practical implications to aid alcohol and sport researchers and policy makers. In addition, its theoretical contributions suggest promising avenues for promoting wellbeing in sport, and strategies for alcohol harm minimisation. A better understanding of how social/group dynamics shape alcohol use may well pave the way for the development of effective interventions that can positively impact alcohol behaviours – and potentially beyond the sports setting that was the focus of this thesis.

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Appendices

Appendix A – Questionnaire used for Chapter 5

Edge Hill University

Drinking and Social Factors in Sports

We are asking **sportspeople's opinions about sport and drinking**, and some of the experiences associated with drinking and sport in general. We also ask questions regarding some of the social factors involved in sport and your opinions regarding other sport and alcohol related factors.
It should only take approximately **15 minutes** to complete. As this is an anonymous questionnaire, we ask that you be as honest and accurate as you can.

Your answers will be kept in strict confidence. In order to protect your anonymity we ask that you provide a **Participant Code** in order identify your responses. This code will be in the form of a memorable "password" chosen by you (specified at the start of the questionnaire; Section A).

For ethical purposes we need you to indicate that: *(please tick to express consent)*

- You are happy to fill out this questionnaire, and have understood what the study is about and is expected of you; ❒
- You understand you are free to stop the questioning at any time, and free to withdraw your data up until 2 weeks after you have been debriefed (at the end of study); ❒
- You have been given the opportunity to ask questions and, if asked, your questions were answered satisfactorily; ❒

Date: _____

Data Protection Act
I understand that data collected about me during my participation in this study will be stored on computer and that any files containing information about me will be made anonymous.
I agree to Edge Hill University recording and processing this information about my experiences and that this information may be presented in other academic forums (e.g., academic journals, at conferences, or in teaching). I understand that information will be used only for these purposes and my consent is conditional upon the University complying with its duties and obligations under the Data Protection Act.

Since we will be following up on this survey we would appreciate it if you could provide us with up-to-date contact details:

Name _____ *please tick to indicate preferred method of contact:*
Email address _____ ❒
Contact Number _____ ❒

NB: Follow-up involvement is **not** compulsory and you are free to withdraw from the study at any point.

Your name and contact details will never be linked to your answers.

Edge Hill University

To begin with please write your **Participant Code** (a memorable **password** chosen by you. Please choose a word you will be able to remember in the future):

Section A. Please tick the appropriate box or fill in the required information.

1. Are you ❒ Male ❒ Female

2. Age _____ yrs

3. Weight _____ kgs/stones & pounds

4. Height _____ cms/feet and inches

5. Please indicate the ethnicity that best describes you

❒	White	❒	Black or Black British
❒	Mixed	❒	Chinese
❒	Asian or Asian British	❒	Other *please specify* _____

6. Year of study (*please circle*) 1st 2nd 3rd 4th 5th N/A

7. Please indicate your current accommodation

❒	On-campus/Halls	❒	With parents/family/guardian
❒	Off-campus/Rented	❒	With partner
❒	Own home	❒	Other *please specify* _____

8. What sport/physical activity are you **primarily** involved with throughout the year?

(This may include traditional sports such as tennis, football, cricket, etc., and/or activities such as weight-lifting, dancing aerobics, etc.)

If more than one sport/physical activity please state the one **most important** to you.

_____

9. Do you personally, your team, or your club/society, receive sponsorship or support for your sports from an **alcohol-related** business(es)/organisation? (E.g. pub, club, brewery)

❒ Yes ❒ No ❒ Don't know

10. On average, approximately how many total hours per week do you spend participating in sport? (Including training/practice and competing) _____ hours

11. What is the highest level you <u>currently</u> (within past year) compete at?

University/Social Club/City County/National Country/International

Edge Hill University

If you **do not drink** alcohol, please write down the reason(s) for your abstinence:

_____

_____

_____

Please continue with the questionnaire and answer only the questions applicable.

Section B. For each of the following questions, please indicate the answer that applies to you.

Please note the units of alcohol typically contained in the drinks below:

1 UNIT	1.5 UNITS	2 UNITS	3 UNITS	9 UNITS	30 UNITS
 Normal beer half pint (284ml) 4%	 Small glass of wine (125ml) 12.5%	 Strong beer half pint (284ml) 6.5%	 Strong beer Large bottle/can (440ml) 6.5%	 Bottle of wine (750ml) 12.5%	 Bottle of spirits (750ml) 40%
 Single spirit shot (25ml) 40%	 Alcopops bottle (275ml) 5.5%	 Normal beer Large bottle/can (440ml) 4.5%	 Large glass of wine (250ml) 12.5%		

Source: ONS, NHS

1. How often do you have a drink containing alcohol?

Never **Monthly or less** **2-4 times a month** **2-3 times a week** **4 or more times a week**

2. How many units of alcohol do you drink on a typical day when you are drinking? *(Refer to top of page for definition* of units)

1 or 2 **3 or 4** **5 or 6** **7, 8 or 9** **10 or more**

3. How often do you have six or more units of alcohol on one occasion? *(Refer to top of page for definition of units)*

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

4. How often during the last year have you found that you were not able to stop drinking once you had started?

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

5. How often during the last year have you failed to do what was normally expected from you because of drinking? (e.g., missed meeting/ class/ event, didn't do a task, etc.)

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

6. How often during the last year have you needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session?

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

Never **Less than monthly** **Monthly** **Weekly** **Daily or almost daily**

9. Have you or someone else been injured as a result of your drinking?

No **Yes, but not in the last year** **Yes during the last year**

10. Has a relative or friend or doctor or another health worker expressed concern about your drinking or suggested you cut down?

No **Yes, but not in the last year** **Yes during the last year**

Section C.

Please indicate, on a scale of **1 (strongly disagree) to 6 (strongly agree)**, how much you agree or disagree with each of the following items:

1.	I I enjoy the feeling of getting drunk.	**1**	**2**	**3**	**4**	**5**	**6**
2.	I drink to help me deal with poor performances.	**1**	**2**	**3**	**4**	**5**	**6**
3.	I drink to have a good time with my teammates.	**1**	**2**	**3**	**4**	**5**	**6**
4.	I drink to deal with sport-related stress.	**1**	**2**	**3**	**4**	**5**	**6**
5.	I drink to "fit in" with my teammates.	**1**	**2**	**3**	**4**	**5**	**6**
6.	After a game/match/meet, it is important for me to go out and celebrate with alcohol.	**1**	**2**	**3**	**4**	**5**	**6**
7.	When drinking alcohol with teammates, it becomes a competition.	**1**	**2**	**3**	**4**	**5**	**6**
8.	Because I work so hard at my sport, I should be able to drink to.	**1**	**2**	**3**	**4**	**5**	**6**
9.	I drink to celebrate athletic victories.	**1**	**2**	**3**	**4**	**5**	**6**
10.	I get a rush out of becoming drunk.	**1**	**2**	**3**	**4**	**5**	**6**
11.	I feel pressure from my teammates to drink alcohol.	**1**	**2**	**3**	**4**	**5**	**6**
12.	Alcohol use is an important part of the athletic culture at this institution.	**1**	**2**	**3**	**4**	**5**	**6**
13.	If I've performed well, I feel like I can go out and drink a little more than usual.	**1**	**2**	**3**	**4**	**5**	**6**
14.	Winning or performing well is a good reason to go out and drink.	**1**	**2**	**3**	**4**	**5**	**6**
15.	I drink because I believe in the "work hard–play hard" lifestyle.	**1**	**2**	**3**	**4**	**5**	**6**
16.	I drink because it's part of the culture of being an athlete.	**1**	**2**	**3**	**4**	**5**	**6**
17.	I drink because it helps our team develop cohesion.	**1**	**2**	**3**	**4**	**5**	**6**
18.	I drink because my teammates expect me to drink with them.	**1**	**2**	**3**	**4**	**5**	**6**
19.	I tend to drink more when I'm not performing well athletically.	**1**	**2**	**3**	**4**	**5**	**6**

Section D.

In answering these questions, consider how you feel about the team (other members) of your sport in general, and not any specific member(s) of the club. Please **circle the option** that is most appropriate.

	Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1. I have a lot in common with other team members.	1	2	3	4	5	6	7
2. I feel strong ties to other team members.	1	2	3	4	5	6	7
3. I find it difficult to form a bond with other team members.	1	2	3	4	5	6	7
4. I don't feel a sense of being "connected" with other team members.	1	2	3	4	5	6	7
5. I really "fit in" with other team members.	1	2	3	4	5	6	7
6. In my sports team, I really feel that I belong.	1	2	3	4	5	6	7
7. I often think about the fact that I am a sports person.	1	2	3	4	5	6	7
8. Overall, being a sports person has very little to do with how I feel about myself.	1	2	3	4	5	6	7
9. In general, being a sports person is an important part of my self-image.	1	2	3	4	5	6	7
10. The fact that I am a sports person rarely enters my mind.	1	2	3	4	5	6	7
11. I am not usually conscious of the fact that I am a sports person.	1	2	3	4	5	6	7
12. Being a sports person is an important reflection of who I am.	1	2	3	4	5	6	7

	Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
13. In my everyday life, I often think about what it means to be a sports person.	1	2	3	4	5	6	7
14. In general, I'm glad to be a sports person.	1	2	3	4	5	6	7
15. I often regret that I am a sports person.	1	2	3	4	5	6	7
16. I don't feel good about being a sports person.	1	2	3	4	5	6	7
17. I consider myself an athlete/sportsperson.	1	2	3	4	5	6	7
18. I have many goals related to sport.	1	2	3	4	5	6	7
19. Most of my friends are athletes/sportspeople.	1	2	3	4	5	6	7
20. Sport is the most important part of my life.	1	2	3	4	5	6	7
21. I spend more time thinking about sport than anything else.	1	2	3	4	5	6	7
22. I need to participate in sport to feel good about myself.	1	2	3	4	5	6	7
23. Other people see me mainly as an athlete/sportsperson.	1	2	3	4	5	6	7
24. I feel bad about myself when I do poorly in sport.	1	2	3	4	5	6	7
25. Sport is the only important thing in my life.	1	2	3	4	5	6	7
26. I would be very depressed if I were injured and could not compete in sport.	1	2	3	4	5	6	7

Section E.

Below are some statements about feeling and thoughts. Please **circle the option** that best describes your experience of each over the **last 2 weeks**:

1.	I've been feeling optimistic about the future	None of the time	Rarely	Some of the time	Often	All the time
2.	I've been feeling useful	None of the time	Rarely	Some of the time	Often	All the time
3.	I've been feeling relaxed	None of the time	Rarely	Some of the time	Often	All the time
4.	I've been feeling interested in other people	None of the time	Rarely	Some of the time	Often	All the time
5.	I've had energy to spare	None of the time	Rarely	Some of the time	Often	All the time
6.	I've been dealing with problems well	None of the time	Rarely	Some of the time	Often	All the time
7.	I've been thinking clearly	None of the time	Rarely	Some of the time	Often	All the time
8.	I've been feeling good about myself	None of the time	Rarely	Some of the time	Often	All the time
9.	I've been feeling close to other people	None of the time	Rarely	Some of the time	Often	All the time
10.	I've been feeling confident	None of the time	Rarely	Some of the time	Often	All the time

For each of the following statements and/or questions, please **circle the point** on the scale that you feel is **most appropriate** in describing you:

1. In general, I consider myself:

1	2	3	4	5	6	7
Not a very happy person						A very happy person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
Less happy						More happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterisation describe you?

1	2	3	4	5	6	7
Not at all						A great deal

4. Some people are generally **not very** happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterisation describe you?

1	2	3	4	5	6	7
Not at all						A great deal

Edge Hill University

THANK YOU!!

Debrief (please detach)

Thank you for completing this questionnaire. The aim of this survey is to investigate alcohol consumption and drinking habits in student sportspeople, and how membership of a sports team influences these behaviours.

You have been asked a number of questions about your alcohol unit intake, drinking behaviour, perceptions on motives for your own drinking, and feelings about your status as a sportsperson, in order to explore what factors shape your drinking behaviour.

These responses may change over time therefore I will require follow-up investigations. If you have expressed consent to continue your involvement in this research you will be contacted for follow-up questionnaire completions. However, giving consent to the use of your present responses does not means you are obligated to complete future questionnaires. If this is the case, your answers today will only be used for data analyses and in the write up of findings, and all participant information (i.e. name, contact details) will be removed from record and destroyed.

Please be aware you are free to withdraw your data from this study from up to 2 weeks after completion of this questionnaire by contacting the Principle Researcher and telling her your memorable word. Contact details are below.

The information collected is for research purposes only will only be used for PhD thesis and journal submissions. No personal or identifying information will be associated with any of the data you provide, and protection of your anonymity will be a primary interest.

Please contact: Jin Zhou should you have any queries regarding the study, or should you wish to view the final report.

Contact Details: zhoujn@edgehill.ac.uk

Jin Zhou, Postgraduate in Research
Psychology Department
Edge Hill University
Ormskirk
L39 4QT
07969 788 674

If you have any concerns about your drinking that have arisen due to the line of questioning, or wish to seek more advice or information regarding alcohol and alcohol consumption, please be aware of these helpful information links:

Alcohol Concern: www.alcoholconcern.org.uk/

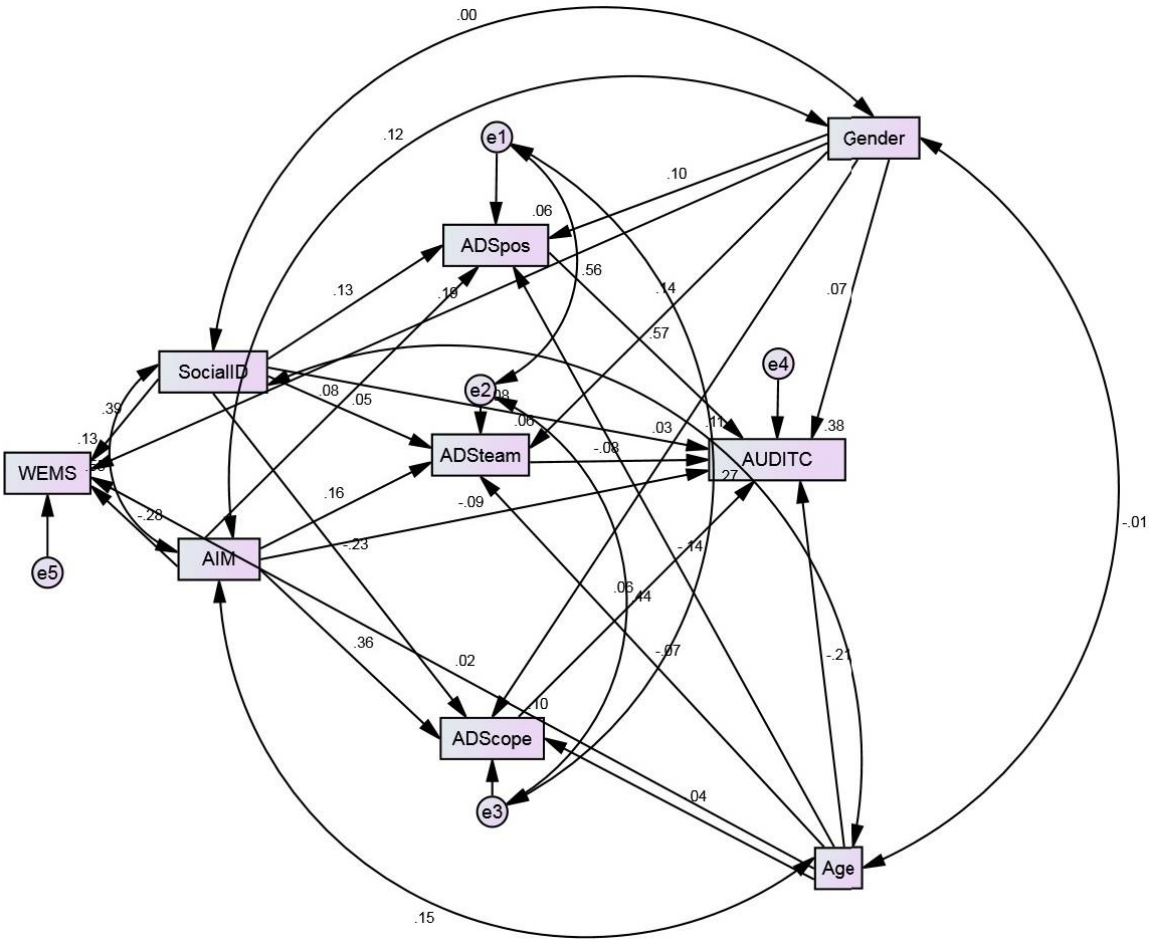
Drink Aware: www.drinkaware.co.uk/

NHS Choices: www.nhs.uk/alcohol/

☺ Many thanks for your interest and involvement in this research ☺

Edge Hill University

Appendix B – Full cross-sectional AMOS paths outputs with co-varying demographics



Appendix C – Interview consent forms

Edge Hill University

Participant Consent Form

- I agree to participate in this study that will be submitted in partial fulfillment of the requirements for a Doctorate in Research.
- I understand that my participation is voluntary.
- I understand that I have the right to decline to answer a question, without penalty, at any time.
- I understand that I can withdraw from the study, without penalty, at any time.
- I give permission for my interview with to be tape-recorded, and the contents transcribed for the use of this study only.
- I understand that I can withdraw permission to use the data within two weeks of the interview, in which case all material will be removed and destroyed.
- I understand that disguised extracts from my interview may be used in the thesis and any subsequent publications, and I give permission for quotation/publication of extracts from my interview.
- I understand that anonymity will be ensured, and I will not be identified by name or any other identifying information within the thesis and any subsequent publications.

_____
Name of Participant

_____ _____
Signature of Participant Date

Interviewer Agreement Form

- I will respect participant responses and observe their right to withdraw at any time and without penatly.
- I will ensure that responses will be kept confidential and Participant anonymity is upheld throughout the study.
- I will ensure that all recorded and transcribed materials will be kept under data protection measure, and that information will be used only for the purposes of the research.
- I will comply with the Code of Ethics and Conduct (BPS, 2009) and ensure the highest standard of professionalism.

_____
Name of Interviewer

_____ _____
Signature of Interviewer Date

Appendix D – Qualitative interview guide

General questions-

Age / year of study/ degree

Sports questions-

What sports do you play? [How long have you played this for? How many hours a week?

Highest competitive level played?]

Are you a member of the committee? [How many members are in your club?]

Why do you play sports? [Why did you join your particular sports club?]

What is most important to you about being involved in your sports club?

[Has that changed since you first started? (why do you think it has changed?)]

Do you feel like you belong to a sporting community/culture that is part of your university experience?

[How important is this? Is this the most important social group you belong to?]

[Is this your primary identity?]

Do you feel strong ties with your sports club? [How? Why? Examples of "best times"?]

How close are you to the other members of your club? [How did you become close?

Examples?]

Drinking behaviours-

Do you drink alcohol? [How often/how much? Where?]

Do you know what binge drinking is? [How often would you say you engaged in binge drinking?]

Do you like it? Is there a particular drinking occasion you enjoy most? [occasion/with who]

Who do you drink with? [friends, sports team, family, housemates]

[Why? E.g opportunities? Sport-related contexts?]

Alcohol in sports-

What are your thoughts about uni sports people drinking more than nonsports? [True/false?]

[Why? To what extent?]

[Are they at a higher risk for?]

What would you say sportspeople gain from drinking? [what do you gain from it? Are they congruent?]

[Do you drink more or less? Do they drink more or less than you?]

Do you associate your sport with drinking? [Why? Do you participate in club drinking?]

Your experiences with sport-associated drinking: Describe a typical night [what are ifferences from sports nights with other nights out?]

[What experiences do you have? Positive/Negative? Feelings and outcomes. What do you "get out of it"]

Impact, importance, meaning for drinking-

Do you have any alcohol-related traditions? [Do you partake? Why? How do they impact on the club?]

Do you have events where it is not related to drinking? [What are the differences for "usual" socials? Are they better?]

Influences: Who usually instigates drinking? [you? Captain? Coach? Other members? Any feelings on peer influence/normative behaviours?]

Is there someone that control/decides drinking behaviours?

Reasons why you might abstain? [Sport / health / money related?]

If you stopped, what would you miss?

Anything to share that we have not already discussed?

Any feelings that you think would make the sporting experience better?

Appendix E – Medical Screening Questionnaire

Effects of Drinking on Economic Decision Making:
Medical Screening Questionnaire

Edge Hill University

Name:
Telephone #:
Email:
Age:

Scheduled session

Date:

Time:

Your status:

Please tick if you are:

- ☐ Student
- ☐ Staff
- ☐ N/A

Please tick if you are currently participant, and is a member of, a:

- ☐ Sports team/club/organisation (*if yes please state:*)
- ☐ Other club/organization/society (*if yes please state:*)

Medical Screening Questionnaire

Alcohol Use Disorders Identification Test (AUDIT)

For each of the following questions, please indicate the answer that applies to you.
Please note the units of alcohol typically contained in the drinks below:

1 UNIT	1.5 UNITS	2 UNITS	3 UNITS	9 UNITS	30 UNITS
 Normal beer half pint (284ml) 4%	 Small glass of wine (125ml) 12.5%	 Strong beer half pint (284ml) 6.5%	 Strong beer Large bottle/can (440ml) 6.5%	 Bottle of wine (750ml) 12.5%	 Bottle of spirits (750ml) 40%
 Single spirit shot (25ml) 40%	 Alcopops bottle (275ml) 5.5%	 Normal beer Large bottle/can (440ml) 4.5%	 Large glass of wine (250ml) 12.5%		

Source: ONS, NHS

1. How often do you have a drink containing alcohol?

☐ Never ☐ Monthly or less ☐ 2-4 times a month ☐ 2-3 times a week ☐ 4 or more times a week

2. How many units of alcohol do you drink on a typical day when you are drinking? *(Refer to top of page for definition* of units)

☐ 1 or 2 ☐ 3 or 4 ☐ 5 or 6 ☐ 7, 8 or 9 ☐ 10 or more

3. How often do you have six or more units of alcohol on one occasion? *(Refer to top of page for definition of units)*

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

5. How often during the last year have you failed to do what was normally expected from you because of drinking? (e.g., missed meeting/ class/ event, didn't do a task, etc.)

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

6. How often during the last year have you needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session?

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

☐ Never ☐ Less than monthly ☐ Monthly ☐ Weekly ☐ Daily, or almost daily

9. Have you or someone else been injured as a result of your drinking?

☐ No ☐ Yes, but not in the last year ☐ Yes during the last year

10. Has a relative or friend or doctor or another health worker expressed concern about your drinking or suggested you cut down?

☐ No ☐ Yes, but not in the last year ☐ Yes during the last year

Medical Screening

1. Are you currently under the regular care of a physician aside from routine or regular checkups?

   ☐ Yes ☐ No

   If YES, for what condition? _____

2. Are you currently taking any medications on a regular basis?

   ☐ Yes ☐ No

   If YES, what medications? _____

3. Have you ever had:

a) a heart attack or stroke?	☐ Yes	☐ No
b) any indication of heart trouble?	☐ Yes	☐ No
c) high blood pressure?	☐ Yes	☐ No
d) diabetes?	☐ Yes	☐ No
e) liver disease?	☐ Yes	☐ No
f) any psychiatric illness?	☐ Yes	☐ No
g) neurological disorders, such as epilepsy?	☐ Yes	☐ No
h) gastrointestinal problems, such as peptic ulcer?	☐ Yes	☐ No
i) pancreatitis?	☐ Yes	☐ No

4. In terms of your use and reactions to alcoholic beverages, have you had:

a) an experience of fainting or a seizure after drinking alcohol?	☐ Yes	☐ No
b) unusual flushing of your skin?	☐ Yes	☐ No
c) problems with your liver?	☐ Yes	☐ No
d) severe or unusual psychological reactions to alcohol?	☐ Yes	☐ No

5. In terms of your history of alcohol use, have you ever:

a) been seriously concerned about the extent or amount of your drinking?	☐ Yes	☐ No
b) been treated or advised to seek treatment for a drinking problem?	☐ Yes	☐ No
c) been told by a professional person that you are or might be an alcoholic?	☐ Yes	☐ No

6. In terms of your family's history of alcohol use, has anyone in your immediate family, that is, mother, father, sister, or brother:

a) been seriously concerned about the extent or amount of his or her drinking?	☐ Yes	☐ No
b) been treated or advised to seek treatment for a drinking problem?	☐ Yes	☐ No
c) been told by a professional person that he or she is or might be an alcoholic?	☐ Yes	☐ No

Medications

7. Are you currently taking any of the following prescription medications?

- ☐ insulin or other drugs used to control ***diabetes*** ? [such as chlorpropamide (Diabinese), metformin (Glucophage), phenformin, or tolbutamide (Orinase)]
- ☐ MAO inhibitors? [such as isocarboxazid (Marplan) or phenelzine (Nardil)]
- ☐ Antabuse, also called disulfiram?
- ☐ ketoconazole, which is an anti-fungal?
- ☐ flagyl, which is an antibiotic?
- ☐ drugs used to control ***blood pressure*** ? [such as nifedipine or verapamil]
- ☐ drugs used for ***autoimmune disorders*** ? [such as methotrexate or procarbazine (Matulane)]
- ☐ benzodiazepines, like Valium or Librium?
- ☐ prescription pain medications?
- ☐ NOT TAKING ANY OF ABOVE MEDICATIONS

FEMALES ONLY

8. Are you currently:

- ☐ Pregnant (or under the possibility of being)
- ☐ Breast feeding

Research subjects,

Please look over the answers you gave to the questions about your medical background and drinking habits. If any have been recorded incorrectly, please discuss with the experimenter.

We would also like you to agree that if you are given alcohol, you will not leave the research vicinity until your blood alcohol concentration (BAC) is below 0.028. When your BAC has fallen below .028, you may leave as long as you agree not to drive.
If you wish to voluntarily leave before your BAC has reached this threshold, you must agree to sign a disclaimer.

If the information is all correct, and you agree to these conditions, please sign and date below.

Signed:

Date:

Please tick whether you require:

- ☐ Participant payment (£6)
- ☐ Participation credits (2; Psychology UG only)
- ☐ N/A

Appendix F – Alcohol administration study consent form

Office use only

Participant No.

Effects of Drinking on Economic Decision Making: Consent Form

Edge Hill University

- I agree to participate in this study that will be submitted in partial fulfillment of the requirements for a Doctorate in Research (PhD).
- I understand that my involvement may involve the consumption of alcohol, and I have disclosed any medical conditions that may impact on my ability to participate.
- I consent to not driving or operating heavy machinery within four hours post-study.
- I understand that my participation is voluntary.
- I understand that I can withdraw from the study, without penalty, at any time. However, if I have consumed alcohol I will be required to wait until my Blood Alcohol Concentration has a reached a safe level (<0.028%) before I can leave.
- I understand that I can withdraw permission to use the data within 2 weeks of the study, by contacting the Primary Investigator and providing my memorable 'password', in which case all material will be removed and destroyed.
- I understand that anonymity will be ensured, and I will not be identified by name or any other identifying information within the thesis and any subsequent publications.
- I have been given the opportunity to ask questions and, if asked, my questions were answered satisfactorily.
- **Female participants only:** I have notified the researcher that I am not pregnant at the time of my participation.

_____

Name of Participant

_____

Signature of Participant Date

Appendix G – Task booklet (Tajfel Matrices)

Office use only

Participant No.

SP

Edge Hill University

'Effects of Drinking on Economic Decision Making' Study

Instructions:

Each page in this response booklet will contain one matrix.
Each matrix consists of 13 boxes, each containing two numbers. Each page will have a different matrix with a different combination of numbers in the boxes.
Each matrix will have two rows of amounts, and the first column will refer to the receiver of these amounts.

In the following matrices you will anonymously assign funding points to the two different people.

One of these people will be someone from the same sports club as you (sports group member) and the other an individual from a different university (other institution member). Please read this carefully before making your selection as the position of these people will change from page to page (altered from the top row to the bottom row).

Please take your time and consider all the numbers in the boxes carefully. There are a variety of choices you can make. Each point is valued at £10.

Example matrix:

Sports groups member:	12	13	14	15	16	17	18	19	20	21	22	23	24
Other institution member:	6	8	10	12	14	16	18	20	22	24	26	28	30

If you pick column 3 (14 and 10), you will have allocated £140 to an anonymous member of your sports club, and £100 to an anonymous individual from a different university.

Once you make your decision **please circle clearly which pairing of points** you wish to allocate, and write the amounts representing your choice in the spaces provided below the scale.
Please note: You cannot choose different numbers from different boxes on the same page. In this task it is not possible to allocate points to yourself, nor will your allocations result in any economical impact on yourself.

Please take this time to read the instructions carefully, and ask the Researcher any questions.
Once you are ready, please open the booklet to begin.

1

(NB: each matrix displayed on new page in study version)

Other institution member:	8	9	10	11	12	13	14	15	16	17	18	19	20
Sports groups member:	26	24	22	20	18	16	14	12	10	8	6	4	2

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Sports groups member:	1	3	5	7	9	11	13	15	17	19	21	23	25
Other institution member:	7	8	9	10	11	12	13	14	15	16	17	18	19

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Other institution member:	8	9	10	11	12	13	14	15	16	17	18	19	20
Sports groups member:	2	4	6	8	10	12	14	16	18	20	22	24	26

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Other institution member:	2	4	6	8	10	12	14	16	18	20	22	24	26
Sports groups member:	20	19	18	17	16	15	14	13	12	11	10	9	8

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Sports groups member:	4	5	6	7	8	9	10	11	12	13	14	15	16
Other institution member:	28	27	26	25	24	23	22	21	20	19	18	17	16

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

ther institution member:	27	26	25	24	23	22	21	20	19	18	17	16	15
Sports groups member:	3	4	5	6	7	8	9	10	11	12	13	14	15

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Other institution member:	26	24	22	20	18	16	14	12	10	8	6	4	2
Sports groups member:	20	19	18	17	16	15	14	13	12	11	10	9	8

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Sports groups member:	19	18	17	16	15	14	13	12	11	10	9	8	7
Other institution member:	25	23	21	19	17	15	13	11	9	7	5	3	1

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Sports groups member:	1	2	3	4	5	6	7	8	9	10	11	12	13
Other institution member:	13	12	11	10	9	8	7	6	5	4	3	2	1

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Other institution member:	2	4	6	8	10	12	14	16	18	20	22	24	26
Sports groups member:	14	13	12	11	10	9	8	7	6	5	4	3	2

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Sports groups member:	19	18	17	16	15	14	13	12	11	10	9	8	7
Other institution member:	1	3	5	7	9	11	13	15	17	19	21	23	25

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Sports groups member:	25	23	21	19	17	15	13	11	9	7	5	3	1
Other institution member:	7	8	9	10	11	12	13	14	15	16	17	18	19

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Sports groups member:	16	17	18	19	20	21	22	23	24	25	26	27	28
Other institution member:	16	15	14	13	12	11	10	9	8	7	6	5	4

Amount awarded to sports group member: £ _____

Amount awarded to other institution member: £ _____

Other institution member:	15	14	13	12	11	10	9	8	7	6	5	4	3
Sports groups member:	15	16	17	18	19	20	21	22	23	24	25	26	27

Amount awarded to other institution member: £ _____

Amount awarded to sports group member: £ _____

Appendix H – Participant disclaimer

Office use only

Participant No. ☐

Effects of Drinking on Economic Decision Making: Disclaimer

Edge Hill University

Name of study participant:

Name of researcher:

I agree that prior to participating in the current psychology experiment, I was given an overview of the experiment with an explanation of the drinks I may be asked to consume (including alcoholic drinks). I was also told that, if given alcohol, I would be requested to stay in the laboratory (even after testing had finished) until my breath alcohol levels reached 0.14mg/l or below. This request is to help prevent any possible adverse effects from the drinks consumed during the experiment and is an ethical requirement of the research.

I have decided to voluntarily leave the vicinity early.

I will not hold the researcher, the Edge Hill University, or any Edge Hill University employee responsible for any accident or adverse incident that may occur to me if I decide to leave the laboratory before my breath alcohol levels are 0.14mg/l or below.

I confirm that I am not experiencing any potentially negative effects of having consumed alcohol.

Even though I am leaving, I know that I must not drive, ride a bike, operate machinery, or exercise for at least 4-5 hours.

Participant Signature:

Researcher Signature:

Date:

Time: